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## THE CONTROL OF COMMUNICABLE DISEASES

REPORT OF THE AMERICAN PUBLIC HEALTH ASSOCIATION COMMITTEE ON  
STANDARD REGULATIONS, APPOINTED IN OCTOBER, 1916

In the following report the terms used are first defined. Each disease is briefly described with regard to the infective agent, the source of infection, the mode of transmission, the incubation period, and the period of communicability. Following this are given the methods of control—first, those affecting the individual patient and his immediate environment, and, second, general measures bearing upon the control or prevention of the disease in question.

Inasmuch as the laws under which various boards and departments of health operate require differences in the legal phraseology of rules, regulations, or sections of sanitary codes dealing with the control of communicable diseases, the committee has refrained from preparing formal regulations under each disease. As the report is at present submitted any health officer, board of health, or legislative body having the power to make rules or regulations or pass sections of sanitary codes dealing with the control of communicable diseases can, by reference to the description of the disease and recommendations for methods of control herewith proposed, easily prepare the necessary text upon which the educational and administrative acts of the health officer will be based.

The committee is indebted for expert opinion and critical comment upon its tentative conclusions to Dr. Simon Flexner, Dr. William H. Park, Prof. Theobald Smith, and Dr. Bertram H. Waters, and acknowledgment of their contributions to the report in its present form is herewith gratefully expressed.

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This revised report of the committee on control of communicable diseases is officially approved by the United States Public Health Service.

#### List of Diseases

Actinomycosis.	Mumps.
Acute infectious conjunctivitis.	Paratyphoid fever.
Anchylostomiasis (hookworm).	Plague.
Anthrax.	Pneumonia (acute lobar).
Chicken pox.	Polioomyelitis.
Cholera.	Rabies.
Dengue.	Rocky Mountain spotted or tick fever.
✓ Diphtheria.	✓ Scarlet fever.
Dysentery (amoebic).	Septic sore throat.
Dysentery (bacillary).	Smallpox.
Epidemic (lethargic) encephalitis.	Syphilis.
Favus.	Tetanus.
German measles.	Trachoma.
Glanders.	Trichinosis.
Gonorrhea.	✓ Tuberculosis (pulmonary).
Influenza.	Tuberculosis (other than pulmonary).
Leprosy.	Tularæmia.
✓ Malaria.	✓ Typhoid fever.
Malta fever.	Typhus fever.
✓ Measles.	Whooping cough.
Meningococcus meningitis.	Yellow fever.

The committee adopted the following definitions of terms:

1. *Carrier*.—A person who, without symptoms of a communicable disease, harbors and disseminates the specific microorganisms.

2. *Cleaning*.—This term signifies the removal by scrubbing and washing, as with hot water, soap, and washing soda, of organic matter on which and in which bacteria may find favorable conditions for prolonging life and virulence; also the removal by the same means of bacteria adherent to surfaces.

3. *Contact*.—A "contact" is any person or animal known to have been sufficiently near to an infected person or animal to have been presumably exposed to transfer of infectious material directly, or by articles freshly soiled with such material.

4. *Delousing*.—By delousing is meant the process by which a person and his personal apparel are treated so that neither the adults nor the eggs of *Pediculus corporis* or *Pediculus capitis* survive.

5. *Disinfection*.—By this is meant the destroying of the vitality of pathogenic microorganisms by chemical or physical means.

When the word *concurrent* is used as qualifying disinfection, it indicates the application of disinfection immediately after the discharge of infectious material from the body of an infected person, or after the soiling of articles with such infectious discharges, all personal contacts with such discharges or articles being prevented prior to their disinfection.

When the word *terminal* is used as qualifying disinfection, it indicates the process of rendering the personal clothing and immediate physical environment of the patient free from the possibility of conveying the infection to others, at the time when the patient is no longer a source of infection.

6. *Disinfesting*.—By disinfesting is meant any process, such as the use of dry or moist heat, gaseous agents, poisoned food, trapping, etc., by which insects and animals known to be capable of conveying or transmitting infection may be destroyed.

7. *Education in personal cleanliness*.—This phrase is intended to include all the various means available to impress upon all members of the community, young and old, and especially when communicable disease is prevalent or during epidemics, by spoken and printed word, and by illustration and suggestion, the necessity of:

(1) Keeping the body clean by sufficiently frequent soap and water baths.

(2) Washing hands in soap and water after voiding bowels or bladder and always before eating.

(3) Keeping hands and unclean articles, or articles which have been used for toilet purposes by others, away from mouth, nose, eyes, ears, and vagina.

(4) Avoiding the use of common or unclean eating, drinking, or toilet articles of any kind, such as towels, handkerchiefs, hair brushes, drinking cups, pipes, etc.

(5) Avoiding close exposure of persons to spray from the nose and mouth, as in coughing, sneezing, laughing, or talking.

8. *Fumigation*.—By fumigation is meant a process by which the destruction of insects, as mosquitoes and body lice, and animals, as rats, is accomplished by the employment of gaseous agents.

9. *Isolation*.<sup>1</sup>—By isolation is meant the separating of persons suffering from a communicable disease, or carriers of the infecting organism, from other persons, in such places and under such conditions as will prevent the direct or indirect conveyance of the infectious agent to susceptible persons.

10. *Quarantine*.<sup>1</sup>—By quarantine is meant the limitation of freedom of movement of persons or animals who have been exposed to communicable disease for a period of time equal to the longest usual incubation period of the disease to which they have been exposed.

11. *Renovation*.—By renovation is meant, in addition to cleansing, such treatment of the walls, floors, and ceilings of rooms or houses as may be necessary to place the premises in a satisfactory sanitary condition.

12. *Report of a disease*.—By report of a disease is meant the notification to the health authorities, and, in the case of communicable disease in animals, also to the respective departments of agriculture which have immediate jurisdiction, that a case of communicable disease exists in a specified person or animal at a given address.

<sup>1</sup> In view of the various ambiguous and inaccurate uses to which the words isolation and quarantine are not infrequently put, it has seemed best to adopt arbitrarily the word isolation as describing the limitation put upon the movements of the known sick or "carrier" individual or animal, and the word quarantine as describing the limitations put upon exposed or "contact" individuals.

13. *Susceptibles*.—A susceptible is a person or animal who is not known to have become immune to the particular communicable disease in question by natural or artificial process.

The items considered necessary for presentation by the committee with regard to each disease are the following:

1. Infective agent.
2. Source of infection.
3. Mode of transmission.
4. Incubation period.
5. Period of communicability.
6. Methods of control.
  - (A) The infected individual and his environment:
    1. Recognition of the disease.
    2. Isolation.
    3. Immunization.
    4. Quarantine.
    5. Concurrent disinfection.
    6. Terminal disinfection.
  - (B) General measures.
  - (C) Epidemic measures (occasionally require separate mention).

#### IMPORTANT MEASURES IN BOLD-FACED TYPE

Certain measures in the control of some diseases are of particular importance, on account either of their efficiency in preventing the disease or of the danger if they are neglected, and also on account of their proven practicability. These are emphasized in the text by being printed in **bold-faced type**.

#### **Actinomycosis**

1. *Infective agent*.—*Actinomyces bovis*.
2. *Source of infection*.—The nasal and bowel discharges, and the infected material from lesions in human and animal cases of the disease. Uncooked meat from infected animals may serve as a source of infection.
3. *Mode of transmission*.—By contact with the discharges or with articles freshly soiled with the discharges from animal or human cases.
4. *Incubation period*.—Unknown.
5. *Period of communicability*.—As long as open lesions remain, as proved by the presence of the infective agent on microscopic or cultural tests.
6. *Methods of control*.
  - (A) The infected individual and his environment—
    1. Recognition of the disease—Clinical symptoms, confirmed by microscopic examination of discharges from the lesions.
    2. Isolation—None, provided the patient is under adequate medical supervision.
    3. Immunization.—None.
    4. Quarantine.—None.
    5. Concurrent disinfection.—Of discharges from lesions and articles soiled therewith.
    6. Terminal disinfection.—By thorough cleaning.
  - (B) General measures—
    1. Inspection of meat, with condemnation of carcasses, or infected parts of carcasses, of infected animals.
    2. Destruction of known animal sources of infection.



### Acute Infectious Conjunctivitis

(Not including trachoma)

(This title to replace the terms gonorrheal ophthalmia, ophthalmia neonatorum, and babies' sore eyes.)

1. *Infectious agent*.—The gonococcus or some member of a group of pyogenic organisms, including the hemoglobinophilic bacilli.
2. *Source of infection*.—Discharges from conjunctivæ, or adnexa, or genital mucous membranes of infected persons.
3. *Mode of transmission*.—Contact with an infected person or with articles freshly soiled with discharges of such person.
4. *Incubation period*.—Irregular, but usually 36 to 48 hours.
5. *Period of communicability*.—During the course of the disease and until the discharges from the infected mucous membranes have ceased.
6. *Methods of control*:

(A) The infected individual and his environment—

1. Recognition of the diseases—Clinical symptoms, confirmed where possible by bacteriological examination.
2. Isolation—None, provided the patient is under adequate medical supervision.
3. Immunization—None.
4. Quarantine—None.
5. *Concurrent disinfection*—Disinfection of conjunctival discharges and articles soiled therewith.
6. *Terminal disinfection*—Thorough cleansing.

(B) General measures—

1. Enforcement of regulations forbidding the use of common towels and toilet articles. Education as to personal cleanliness.
2. Use of silver nitrate or some similar solution in the eyes of the new born.
3. Carrying out of the measures indicated on methods of control for gonorrhea.

### Anchylostomiasis

(Hookworm)

1. *Infectious agent*.—Anchylostoma (*Necator americanus*).
2. *Source of infection*.—Feces of infected persons. Infection generally takes place through the skin, occasionally by the mouth.
3. *Mode of transmission*.—The larval forms pierce the skin, usually of the foot, and passing through the lymphatics to the vena cava and the right heart, thence in the blood stream to the lungs, they pierce the capillary walls and pass into the alveoli. Then they pass up the bronchi and trachea to the throat, whence they are swallowed and finally lodge in the small intestine. Also by drinking water containing larvæ, by eating soiled food, by hand to mouth transmission of the eggs or larvæ from objects soiled with infected discharges. The chief reservoir of infectious material is *contaminated soil*.
4. *Incubation period*.—Seven to ten weeks.
5. *Period of communicability*.—As long as the parasite or its ova are found in the bowel discharges of an infected individual. Contaminated soil remains infective for five months in the absence of freezing.

6. *Methods of control:*

## (A) The infected individual and his environment—

1. Recognition of the disease—Microscopic examination of bowel discharges.
2. Isolation—None.
3. Immunization—None.
4. Quarantine—None.
5. Concurrent disinfection—Sanitary disposal of bowel discharges to prevent contamination of soil and water.
6. Terminal disinfection—None.
7. Treatment—Appropriate treatment of infected individual to rid the intestinal canal of the parasite and its ova.

## (B) General measures—

1. Education as to dangers of soil pollution.
2. Prevention of soil pollution by installation of sanitary disposal systems for human discharges.
3. Personal prophylaxis by cleanliness and the wearing of shoes.

**Anthrax**

1. *Infectious agent.*—Anthrax bacillus, *Bacillus anthracis*.
2. *Source of infection.*—Hair, hides, flesh, and feces of infected animals.
3. *Mode of transmission.*—Inoculation as by accidental wound or scratch, inhalation of spores of the infectious agent, and ingestion of insufficiently cooked infected meat.
4. *Incubation period.*—Within seven days.
5. *Period of communicability.*—During the febrile stage of the disease and until lesions have ceased discharging. Infected hair and hides of infected animals may communicate the disease for many months after slaughter of the animal, and after curing of hide, fur, or hair, unless disinfected.

6. *Methods of control:*

## (A) The infected individual and his environment—

1. Recognition of the disease—Clinical symptoms, confirmed by bacteriological examination.
2. Isolation of the infected individual until the lesions have healed.
3. Immunization—None.
4. Quarantine—None.
5. Concurrent disinfection of the discharges from lesions and articles soiled therewith.
6. Terminal disinfection—Thorough cleaning.

## (B) General measures—

1. Animals ill with a disease presumably anthrax should be placed immediately in the care of a veterinary surgeon. Proved animal cases of the disease should be killed promptly and the carcasses destroyed, preferably by fire.
2. Isolation of all animals affected with the disease.
3. Immunization of exposed animals under direction of Federal or State Department of Agriculture.
4. Post-mortem examinations should be made only by a veterinary surgeon, or in the presence of one.
5. Milk from an infected animal should not be used during the febrile period.

#### 6. *Methods of control*—Continued.

##### (B) *General measures*—Continued.

6. Control and disinfection of effluents and trade wastes and of areas of land polluted by such effluents and wastes from factories or premises, where spore-infected hides or other infected hide and hair products are known to have been worked up into manufactured articles.
7. A physician should be constantly employed by every company handling rawhides, or such companies should operate under the direct supervision of a medical representative of the health department.
8. Every employee handling rawhides, hair, or bristles who has an abrasion of the skin should immediately report to a physician.
9. Special instruction should be given to all employees handling rawhides in regard to the necessity of personal cleanliness.
10. Tanneries and woolen mills should be provided with proper ventilating apparatus so that dust can be promptly removed.
11. Disinfection of hair, wool, and bristles of animals originating in known infected centers before they are used or assorted.
12. The sale of hides from an animal infected with anthrax should be prohibited. A violation of this regulation should be immediately reported to the State commissioner of agriculture, by telegram, stating the time, place, and purchaser to whom the hide was sold. The report should also be sent to the person purchasing the hide. Carcasses should be disposed of under the supervision of the State department of agriculture. The inspection and disinfection of imported hides are under the supervision of the United States Bureau of Animal Industry. In the event that infection is introduced the State agricultural authorities have jurisdiction over infected animals and the local or State health authorities have jurisdiction over infected persons.

#### **Chicken Pox**

1. *Infectious agent*.—Unknown.
2. *Source of infection*.—The infectious agent is presumably present in the lesions of the skin and of the mucous membranes; the latter appearing early and rupturing as soon as they appear, render the disease communicable early, that is, before the exanthem is in evidence.
3. *Mode of transmission*.—Directly from person to person; indirectly through articles freshly soiled by discharges from an infected individual.
4. *Incubation period*.—Two to three weeks.
5. *Period of communicability*.—Until the primary scabs have disappeared from the mucous membranes and the skin.
6. *Methods of control*:

##### (A) The infected individual and his environment—

1. Recognition of the disease—Clinical symptoms. The chief public health importance of this disease is that cases thought to be chicken pox in persons over 15 years of age, or at any age during an epidemic of smallpox, are to be investigated to eliminate the possibility of their being smallpox.
2. Isolation—Exclusion of patient from school, and prevention of contact with nonimmune persons.
3. Immunization—None.

*Methods of control—Continued.*

## (A) The infected individual and his environment—Continued.

4. Quarantine—None.

5. Concurrent disinfection of articles soiled by discharges from lesions.

6. Terminal disinfection—Thorough cleaning.

## (B) General measures—None.

**Cholera**1. *Infectious agent.*—Cholera vibrio, *Vibrio comma*.2. *Source of infection.*—Bowel discharges and vomitus of infected persons, and feces of convalescent or healthy carriers. Ten per cent of contacts may be found to be carriers.3. *Mode of transmission.*—By food and water polluted by infectious agent; by contact with infected persons, carriers, or articles freshly soiled by their discharges; by flies.4. *Incubation period.*—One to five, usually three days, occasionally longer if the healthy carrier stage, before development of symptoms, is included.5. *Period of communicability.*—Usually 7 to 14 days or longer and until the infectious organism is absent from the bowel discharges.6. *Methods of control:*

## (A) The infected individual and his environment—

1. Recognition of the disease—Clinical symptoms, confirmed by bacteriological examination.

2. Isolation of patient in hospital or screened room.

3. Immunization by vaccination may be of value.

4. Quarantine—Contacts for five days from last exposure, or longer if stools are found to contain the cholera vibrio.

5. Concurrent disinfection—Prompt and thorough disinfection of the stools and vomited matter. Articles used by and in connection with the patient must be disinfected before removal from the room. Food left by the patient should be burned.

6. Terminal disinfection—Bodies of those dying from cholera should be cremated if practicable, or, otherwise, wrapped in a sheet wet with disinfectant solution and placed in water-tight caskets. The room in which a sick patient was isolated should be thoroughly cleaned and disinfected.

## (B) General measures—

1. Rigid personal prophylaxis of attendants by scrupulous cleanliness, disinfection of hands each time after handling patient or touching articles contaminated by dejecta, the avoidance of eating or drinking anything in the room of the patient, and the prohibition of those attendant on the sick from entering the kitchen.

2. The bacteriological examination of the stools of all contacts to determine carriers. Isolation of carriers.

3. Water should be boiled, if used for drinking or toilet purposes, or if used in washing dishes or food containers, unless the water supply is adequately protected against contamination or is so treated, as by chlorination, that the cholera vibrio can not survive in it.



#### 6. *Methods of control*—Continued.

##### (B) General measures—Continued.

4. Careful supervision of food and drink. Where cholera is prevalent, only cooked foods should be used. Food and drink after cooking or boiling should be protected against contamination, as by flies and human handling.

##### (C) Epidemic measures—

Inspection service for early detection and isolation of cases; examination of persons exposed in infected centers for detection of carriers, with isolation or control of carriers; disinfection of rooms occupied by the sick, and the detention, in suitable camps for five days, of those desirous of leaving for another locality. Those so detained should be examined for detection of carriers.

### Dengue

1. *Infectious agent*.—Unknown.
2. *Source of infection*.—The blood of infected persons.
3. *Mode of transmission*.—By the bite of infected mosquitoes, *Aedes ægypti*.
4. *Incubation period*.—Three to ten days.
5. *Period of communicability*.—From the day before onset to the fifth day of the disease.
6. *Methods of control*:

##### (A) The infected individual and his environment—

1. Recognition of the disease—Clinical symptoms.
2. Isolation—The patient must be kept in a screened room.
3. Immunization—None.
4. Quarantine—None.
5. Concurrent disinfection—None.
6. Terminal disinfection—None. Upon termination of the case, fumigation of the room and house, to destroy mosquitoes.

##### (B) General measures—

Measures directed toward elimination of mosquitoes (*Aedes ægypti*). Screening of rooms.

### Diphtheria

1. *Infectious agent*.—Diphtheria bacillus, *Corynebacterium diphtheriæ*, the Klebs-Loeffler bacillus.
2. *Source of infection*.—Discharges from diphtheritic lesions of nose, throat, conjunctiva, vagina, and wound surfaces. Secretions from the nose and throat of carriers of the bacillus.
3. *Mode of transmission*.—Directly by personal contact, indirectly by articles freshly soiled with discharges, or through infected milk or milk products.
4. *Incubation period*.—Usually two to five days, occasionally longer if a healthy carrier stage precedes the development of clinical symptoms.
5. *Period of communicability*.—Until virulent bacilli have disappeared from the secretions and the lesions. The persistence of the bacilli after the lesions have healed is variable. In fully three-fourths of the cases they disappear within two weeks. In 95 per cent of cases, the bacilli disappear in four weeks. In exceptional cases virulent bacilli remain in the throat and discharges for from two to six months.

**6. Methods of control:****(A) The infected individual and his environment—**

1. **Recognition of the disease**—By clinical symptoms with confirmation by bacteriological examination of discharges.
2. **Isolation**—Until two cultures from the throat and two from the nose, taken not less than 24 hours apart, fail to show the presence of diphtheria bacilli. Isolation may be terminated if persistent diphtheria bacilli prove avirulent. Where termination by culture is impracticable, cases may be terminated with fair safety as a rule 16 days after onset of the disease.
3. **Immunization**—Exposed susceptibles who can not be kept under daily observation by a physician or nurse should be promptly immunized by antitoxin. (By susceptibles is meant such individuals as are found to be nonimmune by the Schick test, i. e., those who give a positive reaction.)
4. **Quarantine**—All exposed persons until shown by bacteriological examination not to be carriers.
5. **Concurrent disinfection of all articles which have been in contact with the patient and all articles soiled by discharges from the patient.**
6. **Terminal disinfection**—At the end of the illness, thorough airing and sunning of the sick room, with cleaning or renovation.

**(B) General measures—**

1. Pasteurization of milk supply.
2. Application of the Schick test to all especially exposed persons, such as nurses and physicians, and active immunization of all susceptibles, but not within three weeks after the administration of antitoxin.
3. **Active immunization of all children by the end of the first year without prior Schick testing; active immunization of school children with or without prior use of the Schick test.**
4. Determination of presence or absence of carriers among contacts and, so far as practicable, in the community at large.

**Dysentery (Amœbic)**

1. **Infectious agents.**—*Endamæba histolytica*.
2. **Source of infection.**—The bowel discharges of infected persons.
3. **Mode of transmission.**—By drinking contaminated water, and by eating infected foods, and by hand-to-mouth transfer of infected material; from objects soiled with discharges of an infected individual, or of a carrier; by flies.
4. **Incubation period.**—Unknown.
5. **Period of communicability.**—During course of disease and until repeated microscopic examination of stools shows absence of *Amœba histolytica*.
6. **Methods of control.**—

**(A) The infected individual and his environment—**

1. **Recognition of the disease**—Clinical symptoms, confirmed by microscopic examination of stools.
2. **Isolation**—None.
3. **Immunization**—None.
4. **Quarantine**—None.
5. **Concurrent disinfection of the bowel discharges.**
6. **Terminal disinfection**—Cleaning.

## 6. Methods of control—Continued.

### (B) General measures—

1. Boil drinking water unless the supply is known to be free from contamination.
2. Water supply should be protected against contamination, and supervision should be exercised over all foods eaten raw.

### Dysentery (Bacillary)

1. *Infectious agent*.—Dysentery bacillus, *Erberthella dysenteriae*, *Erberthella para dysenteriae*.
2. *Source of infection*.—The bowel discharges of infected persons.
3. *Mode of transmission*.—By drinking contaminated water, by eating infected foods, and by hand-to-mouth transfer of infected material; from objects soiled with discharges of an infected individual or of a carrier; by flies.
4. *Incubation period*.—Two to seven days.
5. *Period of communicability*.—During the febrile period of the disease and until the organism is absent from the bowel discharges.
6. *Methods of control*.—

#### (A) The infected individual and his environment—

1. Recognition of the disease—Clinical symptoms, confirmed by serological and bacteriological tests.
2. Isolation—Infected individuals during the communicable period of the disease.
3. Immunization—Vaccines give considerable immunity. Owing to severe reactions their use is not universal, nor should it be made compulsory except under extreme emergency.
4. Quarantine—None.
5. Concurrent disinfection—Bowel discharges.
6. Terminal disinfection—Cleaning.

#### (B) General measures—

1. Rigid personal prophylaxis of attendants upon infected persons.
2. No milk or food for human consumption should be sold from a place occupied by a patient unless the persons engaged therein occupy quarters separate from the house where the patient is sick, and all utensils used are cleaned and kept in a separate building and under a permit from the health officer.
3. All attendants upon persons affected with this disease should be prohibited from having anything to do with the handling of food.
4. Necessary precautions against flies.
5. Careful supervision of food and drink. Where dysentery is prevalent, only cooked foods should be used. Food and drink after cooking or boiling should be protected against contamination, as by flies and human handling.

### Epidemic (Lethargic) Encephalitis

1. *Infectious agent*.—Unknown.
2. *Source of infection*.—Probably discharges from the nose and throat of infected persons, or articles freshly soiled therewith. It is supposed that there are healthy carriers during prevalence of the disease.
3. *Mode of transmission*.—Probably by direct contact with an infected person or a carrier of the virus, or by contact with articles freshly soiled with the discharges of the nose or throat of such persons.

4. *Incubation period*.—Undetermined. Believed to be about 10 days.
5. *Period of communicability*.—Probably during the febrile stage of the disease.
6. *Methods of control*.—

(A) The infected individual and his environment—

1. Recognition of the disease, by clinical symptoms.
2. Isolation of recognized cases for one week after onset.
3. Immunization—None.
4. Quarantine—None.
5. Concurrent disinfection—Discharges of the nose and throat and articles soiled therewith.
6. Terminal disinfection—Cleaning.

(B) General measures—

1. Search for and examination of cases during periods of prevalence.
2. Isolation of suspected febrile cases pending diagnosis.

### Favus

1. *Infectious agent*.—*Achorion schoenleinii*.
2. *Source of infection*.—Lesions of skin, particularly on scalp.
3. *Mode of transmission*.—Direct contact with patient, and indirectly through toilet articles.
4. *Incubation period*.—Unknown.
5. *Period of communicability*.—Until skin and scalp lesions are all healed.
6. *Methods of control*:

(A) The infected individual and his environment—

1. Recognition of the disease—Clinical symptoms confirmed by microscopic examination of crusts.
2. Isolation—Exclusion of patient from school and other public places until lesions are healed.
3. Immunization—None.
4. Quarantine—None.
5. Concurrent disinfection—Toilet articles of patient.
6. Terminal disinfection—None.

(B) General measures—

1. Elimination of common utensils, such as hair brushes and combs.
2. Provision for adequate and intensive treatment and cure of cases of favus at hospitals and dispensaries, to abbreviate the period of infectivity of the patients.

### German Measles (Rubella)

1. *Infectious agent*.—Unknown.
2. *Source of infection*.—Secretions of the mouth and possibly of the nose.
3. *Mode of transmission*.—By direct contact with the patient or with articles freshly soiled with the discharges from the nose or throat of the patient.
4. *Incubation period*.—From 14 to 21 days.
5. *Period of communicability*.—Eight days from onset of the disease.
6. *Methods of control*:

(A) The infected individual and his environment—

1. Recognition of the disease—Clinical symptoms.
2. Isolation—Separation of the patient from nonimmune children, and exclusion of the patient from school and public places for the period of presumed infectivity.
3. Immunization—None.
4. Quarantine—None.



#### 6. *Methods of control*—Continued.

##### (A) The infected individual and his environment—Continued.

5. Concurrent disinfection—Discharges from the nose and throat of the patient and articles soiled by discharges.
6. Terminal disinfection—Airing and cleaning.

##### (B) General measures—None.

NOTE.—The reason for attempting to control this disease is that it may be confused with scarlet fever during its early stages; each person having symptoms of the disease should therefore be placed under the care of a physician and the case should be reported to the local department of health.

### Glanders

1. *Infectious agent*.—Glanders bacillus, *Pfefferella mallei*.
2. *Source of infection*.—Discharges from open lesions of mucous membranes, or of the skin of human or equine cases of the disease (i. e., pus and mucus from the nose, throat, and bowel discharges from infected man and horse).
3. *Mode of transmission*.—Contact with a case or with articles freshly soiled by discharges from a human or equine case.
4. *Incubation period*.—Unknown.
5. *Period of communicability*.—Until bacilli disappear from discharges or until lesions have healed.

#### 6. *Methods of control*:

##### (A) The infected individual and his environment—

1. Recognition of the disease—By specific biological reactions, such as the complement fixation test, the mallein test, the agglutination test, or by nonspecific reactions, such as the Straus reaction, if confirmed by culture, or by identification of the *Bacillus mallei*, or by autopsy of doubtful cases.
2. Isolation—Human case at home or hospital; for infected horses destruction rather than isolation is advised. **Skin contact with the lesions in the living or dead body is to be scrupulously avoided.**
3. Immunization—None of established value or generally accepted.
4. Quarantine of all horses in an infected stable until all have been tested by specific reaction, and the removal of infected horses and terminal disinfection of stable have been accomplished.
5. Concurrent disinfection—Discharges from human cases and articles soiled therewith.
6. Terminal disinfection—Stables and contents where infected horses are found.

##### (B) General measures—

1. The abolition of the common drinking trough for horses.
2. Sanitary supervision of stables and blacksmith shops.
3. Semiannual testing of all horses by a specific reaction where the disease is common.
4. Testing of all horses offered for sale where the disease is common.

NOTE.—In this disease, as in all infectious or communicable diseases from which both animals and humans suffer, cases occurring in animals should be reported to the Department of Agriculture and human cases should be reported to the Department of Health, reciprocal notification thereafter to be accomplished through official interdepartment channels.

### Gonorrhea

1. *Infectious agent*.—Gonococcus, *Neisseria gonorrhææ*.
2. *Source of infection*.—Discharges from lesions of inflamed mucous membranes and glands of infected persons, viz, urethral, vaginal, cervical, conjunctival mucous membranes, and Bartholin's or Skene's glands in the female, and Cowper's and the prostate glands in the male.

3. *Mode of transmission*.—By direct personal contact with infected persons, and indirectly by contact with articles freshly soiled with the discharges of such persons.
4. *Incubation period*.—One to eight days, usually three to five days.
5. *Period of communicability*.—As long as the gonococcus persists in any of the discharges, whether the infection be an old or a recent one.
6. *Methods of control*:
  - (A) The infected individual and his environment—
    1. Recognition of the disease—Clinical symptoms, confirmed by bacteriological examination or serum reaction.
    2. Isolation—When the lesions are in the genito-urinary tract, exclusion from sexual contact, and when the lesions are conjunctival, exclusion from school or contact with children, as long as the discharges contain the infecting organism.
    3. Immunization—None.
    4. Quarantine—None.
    5. Concurrent disinfection—Discharges from lesions and articles soiled therewith.
    6. Terminal disinfection—None.
  - (B) General measures—
    1. Education in matters of sexual hygiene, particularly as to the fact that continence in both sexes at all ages is compatible with health and normal development.
    2. Provision for accurate and early diagnosis, and treatment in hospitals and dispensaries of infected persons, with consideration for privacy of record and provision for following cases until cured.
    3. Repression of prostitution by use of police power and control of use of living premises.
    4. Restriction of sale of alcoholic beverages.
    5. Restrictions of advertising of services or medicines for the treatment of sex diseases, etc.
    6. Elimination of common towels and toilet articles from public places.
    7. Use of prophylactic silver solution in the eyes of the new born.
    8. Exclusion of persons in the communicable stage of the disease from participation in the preparing and serving of food.
    9. Personal prophylaxis should be advised to those who expose themselves to opportunity for infection.

### Influenza

1. *Infectious agent*.—Undetermined.
2. *Source of infection*.—Probably discharges from the mouth and nose of infected persons and articles freshly soiled with such discharges.
3. *Mode of transmission*.—Believed to be by direct contact, by droplet infection or by articles freshly soiled with discharges of the nose and throat of infected persons.
4. *Incubation period*.—Short, usually 24 to 72 hours.
5. *Period of communicability*.—Undetermined, apparently during the febrile period or at least for seven days from onset of clinical symptoms.

6. *Methods of control:*

## (A) The infected individual and his environment—

1. Recognition of the disease—By clinical symptoms only. Uncertain in inter-epidemic periods.
2. Isolation—During acute stage of disease.
3. Immunization—None; vaccines have not proved of definite value.
4. Quarantine—None.
5. Concurrent disinfection—Discharges from the nose and throat of the patient.
6. Terminal disinfection—Airing and cleaning.

## (B) General measures—

During epidemics efforts should be made to reduce opportunities for direct-contact infection, as in crowded halls, stores, and street cars. Kissing, the use of common towels, glasses, eating utensils, or toilet articles should be avoided. The hands should be washed carefully before eating. In isolated towns and institutions, infection has been delayed and sometimes avoided by strict exclusion of visitors from already infected communities. The closing of schools has not been effective in checking the spread of infection. The use of masks by nurses and other attendants has proved of value in preventing infection in hospitals. Scrupulous cleanliness of dishes and utensils used in preparing and serving food in public eating places should be required, including the subjection of all such articles to disinfection in hot soap-suds. In groups which can be brought under daily professional inspection, the isolation of early and suspicious cases of respiratory tract inflammation, particularly when accompanied with a rise in temperature, may be relied upon to delay the spread of the disease. To minimize the severity of the disease and to reduce mortality, patients should go to bed at the beginning of an attack and not return to work without the approval of their physician.

**Leprosy**

1. *Infectious agent.*—Leprosy bacillus, *Mycobacterium lepræ*.
2. *Source of infection.*—Discharges from lesions.
3. *Mode of transmission.*—By close, intimate, and prolonged contact with infected individuals. Flies and other insects may be mechanical carriers.
4. *Incubation period.*—Prolonged, undetermined.
5. *Period of communicability.*—Infectivity exists throughout the duration of the disease.

Where good standards of personal hygiene prevail, this disease is but slightly communicable.

6. *Methods of control:*

## (A) The infected individual and his environment—

1. Recognition of the disease—Clinical symptoms, confirmed by bacteriological examination.
2. Isolation for life in national leprosarium when this is possible, or at least until treatment has brought about a healing of all lesions of skin and mucous membranes and the patient has been observed with the disease in this arrested form for not less than six months.
3. Immunization—None.
4. Quarantine—None.

6. *Methods of control*—Continued.

## (A) The infected individual and his environment—Continued.

5. Concurrent disinfection—Discharges and articles soiled with discharges.
6. Terminal disinfection—Thorough cleansing of living premises of the patient.

## (B) General measures—

1. Lack of information as to the determining factors in the spread and communication of the disease makes any but general advice in matters of personal hygiene of no value.
2. As a temporary expedient lepers may be properly cared for in local hospitals, or if conditions of the patient and his environment warrant, he may be allowed to remain on his own premises under suitable regulations.

**Malaria**

1. *Infectious agent*.—The several species of malarial organisms—*Plasmodium vivax* (tertian); *Plasmodium malarix* (quartan); *Laverania falciparum* (æstivo-autumnal).
2. *Source of infection*.—The blood of an infected individual.
3. *Mode of transmission*.—By bite of the infected *Anopheles* mosquitoes. The mosquito is infected by biting an individual suffering from acute or chronic malaria. The parasite develops in the body of the mosquito for from 10 to 14 days, after which time the sporozoites appear in its salivary glands.
4. *Incubation period*.—Varies with the type of species of infecting organism and the amount of infection; usually 14 days in the tertian variety.
5. *Period of communicability*.—As long as the malaria organism exists in the blood.
6. *Methods of control*:

## (A) The infected individual and his environment—

1. Recognition of the disease—Clinical symptoms, always to be confirmed by microscopical examination of the blood. Repeated examinations may be necessary.
2. Isolation—None except protection of the patient from approach of mosquitoes by screening his bed or room or house, until his blood is rendered free from malarial parasites by thorough treatment with quinine.
3. Immunization—None. The administration of prophylactic doses of quinine should be insisted upon for those constantly exposed to infection and unable to protect themselves against *Anopheles* mosquitoes.
4. Quarantine—None
5. Concurrent disinfection—None. Destruction of *Anopheles* mosquitoes in the sick room.
6. Terminal disinfection—None. Destruction of *Anopheles* mosquitoes in the sick room.

## (B) General measures—

1. Employment of known measures for destroying larvæ of *anopheles* and the eradication of breeding places of such mosquitoes.
2. Blood examination of persons living in infected centers to determine the incidence of infection.
3. Screening sleeping and living quarters; use of mosquito nets.
4. Killing mosquitoes in living quarters.



### Malta Fever

1. *Infective organism*.—*Micrococcus melitensis*; *Brucella melitensis*; *Alkaligenes melitensis*; *Alkaligenes abortus*.
2. *Source of infection*.—The milk and urine of infected goats, and the urine, blood, and milk of other infected domestic animals, mules, asses, horses, cows, oxen, hogs, sheep, rabbits, dogs, and fowls; the urine of infected persons and of carriers of the organism.
3. *Mode of transmission*.—By ingestion of milk from infected goats commonly; by direct contact with infected animals and persons and their urinary discharges in ways to permit the contamination of food and hands, occasionally; by inhalation of dust from soil or surfaces contaminated with urinary discharges of infected animals or persons rarely; possibly by inoculation through abrasions of the skin by contaminated dust or soil, and by sexual intercourse with infected persons, and rarely by ingestion of infected cow's milk or by contact with infected blood or organs of domestic animals.
4. *Incubation period*.—Six to sixteen days.
5. *Period of communicability*.—From the onset of the disease until the organism is no longer found in the urine, usually 90 days, with a range of 20 to 300 days.
6. *Methods of control*:
  - (A) The infected individual and his environment—
    1. Recognition of the disease—The clinical picture and particularly the undulant character of the fever, supplemented by exact determination through the use of agglutination tests and bacteriological examination of the blood and urine for the infecting organism.
    2. Isolation of infected individuals during the period of communicability.
    3. Immunization—Preventive vaccination by suspensions of mixtures of the *Micrococcus melitensis* and *Micrococcus paramelitensis* have given good results. This is advised for exposed susceptibles, especially those handling goats in areas where the disease is known to exist. Autogenous vaccines have been used with but little success in the treatment of the disease.
    4. Quarantine—None.
    5. Concurrent disinfection of all discharges, especially the urine and of articles soiled with such discharges.
    6. Terminal disinfection—Cleaning.
  - (B) General measures—
    1. Sterilization of goats' milk.
    2. Protection of public water supplies.
    3. Supervision of human carriers and their exclusion from the handling of foods.
    4. Destruction of infected animals.
    5. Search for infection among goats by the serum and the lacto reaction (Zammit).
    6. Immunization of goats by vaccines in areas where the disease is prevalent.
    7. Exclusion of goats from areas of infection.
    8. Sanitary supervision of goat shelters.

**Measles**

1. *Infectious agent*.—Unknown.
2. *Source of infection*.—Buccal and nasal secretions of an infected individual.
3. *Mode of transmission*.—Directly from person to person; indirectly through articles freshly soiled with the buccal and nasal discharges of an infected individual. The most easily transmitted of all communicable diseases.
4. *Incubation period*.—About 10 days.
5. *Period of communicability*.—During the period of catarrhal symptoms and until the cessation of abnormal mucous membrane secretions—minimum period of nine days; from four days before to five days after the appearance of the rash.
6. *Methods of control*:
  - (A) The infected individual and his environment—
    1. Recognition of the disease—Clinical symptoms. Special attention to rise of temperature, Koplik spots and catarrhal symptoms in exposed individuals.
    2. Isolation—During period of communicability.
    3. Immunization—By the use of the serum or whole blood of convalescent measles patients, or of any healthy adults who have had measles, given within five days after exposure to a known case of measles, the attack in the exposed person may be averted in a high percentage of instances; if not averted, the disease is modified. Given later, but at a time prior to the clinical onset of the disease, convalescent serum usually modifies the severity of the attack and the patient acquires the usual lasting immunity to the disease.
    4. Quarantine—Exclusion of exposed susceptible school children and teachers from school until 14 days from last exposure. This applies to exposure in the household. Exclusion of exposed susceptible children from all public gatherings for the same period.
    5. Concurrent disinfection—All articles soiled with the secretions of the nose and throat.
    6. Terminal disinfection—Thorough cleaning.
  - (B) General measures—
    1. Daily examination of exposed children and of other possibly exposed persons. This examination should include record of the body temperature. A nonimmune exposed individual exhibiting a rise of temperature of  $0.5^{\circ}$  C. or more should be promptly isolated pending diagnosis.
    2. Schools should not be closed or classes discontinued where daily observation of the children by a physician or nurse is provided for.
    3. Education as to special danger of exposing young children to those exhibiting acute catarrhal symptoms of any kind.
    4. In institutional outbreaks immunization with convalescent serum of all minor inmates who have not had measles is of value in checking the spread of infection and in reducing mortality.

### **Meningococcus Meningitis**

1. *Infective agent*.—Meningococcus; *Neisseria intracellularis*.
2. *Source of infection*.—Discharges from the nose and mouth of infected persons. Clinically recovered cases, and healthy persons who have never had the disease but have been in contact with cases of the disease or other carriers, act as carriers and are commonly found, especially during epidemics. Such healthy carriers are not uncommonly found independent of epidemic prevalence of the disease.
3. *Mode of transmission*.—By direct contact with infected persons and carriers, and indirectly by contact with articles freshly soiled with the nasal and mouth discharges of such persons.
4. *Incubation period*.—Two to ten days, commonly seven. Occasionally for longer periods when a person is a carrier for a time before developing the disease.
5. *Period of communicability*.—During the clinical course of the disease and until the specific organism is no longer present in the nasal and mouth discharges of the patient. The same applies to healthy carriers so far as affects persistence of infectious discharges.

6. *Methods of control*:

(A) The infected individual and his environment—

1. Recognition of the disease—Clinical symptoms, confirmed by the microscopic and bacteriological examination of the spinal fluid, and by bacteriological examination of nasal and pharyngeal secretions.
2. Isolation of infected persons until 14 days after onset of the disease.
3. Immunization by the use of vaccines is still in the experimental stage.
4. Quarantine—None.
5. Concurrent disinfection of discharges from the nose and mouth and of articles soiled therewith.
6. Terminal disinfection—Cleaning.

(B) General measures—

1. Search for carriers among families and associates of recognized cases by bacteriological examination of posterior nares of all contacts.
2. Education as to personal cleanliness and necessity of avoiding contact and droplet infection.
3. Prevention of overcrowding such as is common in living quarters, transportation conveyances, working places, and places of public assembly in the civilian population, and in inadequately ventilated closed quarters in barracks, camps, and ships among military units.

(C) Epidemic measures—

1. Increase the separation of individuals and the ventilation in living and sleeping quarters for such groups of people as are especially exposed to infection because of their occupation or some necessity of living conditions. Bodily fatigue and strain should be minimized for those especially exposed to infection.
2. Carriers should be quarantined until the nasal and pharyngeal secretions are proved by bacteriological examination to be free from the infecting organism.

**Mumps**

1. *Infective organism*.—Unknown.
2. *Source of infection*.—Secretions of the mouth and possibly of the nose.
3. *Mode of transmission*.—By direct contact with an infected person or with articles freshly soiled with the discharges from the nose or throat of such infected person.
4. *Incubation period*.—From 12 to 26 days. The most common period, 18 days, accepted as usual. A period of 21 days is not uncommon.
5. *Period of communicability*.—Unknown, but assumed to persist until the parotid gland has returned to its normal size.
6. *Methods of control*:
  - (A) The infected individual and his environment—
    1. Recognition of the disease—Inflammation of Stenson's duct may be of assistance in recognizing the early stage of the disease. The diagnosis is usually made on swelling of the parotid gland.
    2. Isolation—Separation of the patient from nonimmune children and exclusion of the patient from school and public places for the period of presumed infectivity. (See 5.)
    3. Immunization—None.
    4. Quarantine—None. Exposed susceptible persons should be regularly inspected for the onset, the presence of initial symptoms of the disease, such as fever, or swelling or pain of the parotid or adjacent lymph glands, for three weeks from the date of last exposure.
    5. Concurrent disinfection—All articles soiled with the discharges from the nose and throat of the patient.
    6. Terminal disinfection—None.
  - (B) General measures—None.

**Paratyphoid Fever**

1. *Infectious agent*.—Paratyphoid bacillus A or B; *Salmonella paratyphi*; *Salmonella schottmülleri*.
2. *Source of infection*.—Bowel discharges and urine of infected persons, and foods contaminated with such discharges of infected persons or of healthy carriers. Healthy carriers may be numerous in an outbreak.
3. *Mode of transmission*.—Directly by personal contact; indirectly by contact with articles freshly soiled with the discharges of infected persons or through milk, water, or food contaminated by such discharges.
4. *Incubation period*.—Four to ten days; average, seven days.
5. *Period of communicability*.—From the appearance of prodromal symptoms, throughout the illness and relapses, during convalescence, and until repeated bacteriological examination of discharges show absence of the infecting organism.
6. *Methods of control*:
  - (A) The infected individual and his environment—
    1. Recognition of the disease—Clinical symptoms, confirmed by specific agglutination test, and by bacteriological examination of blood, bowel discharges, or urine.
    2. Isolation—In fly-proof room, preferably under hospital conditions, of such cases as can not command adequate sanitary environment and nursing care in their homes.
    3. Immunization of exposed susceptibles.



6. *Methods of control*—Continued.

## (A) The infected individual and his environment—Continued.

4. Quarantine—None.
5. Concurrent disinfection—Disinfection of all bowel and urinary discharges and articles soiled with them.
6. Terminal disinfection—Cleaning.

## (B) General measures—

1. Protection and purification of public water supplies.
2. Pasteurization of public milk supplies.
3. Supervision of other food supplies and of food handlers.<sup>2</sup>
4. Prevention of fly breeding.
5. Sanitary disposal of human excreta.
6. Extension of immunization by vaccination as far as practicable.
7. Supervision of paratyphoid carriers and their exclusion from the handling of foods.
8. Systematic examination of fecal specimens, from those who have been in contact with recognized cases, to detect carriers.
9. Exclusion of suspected milk supplies pending discovery of the personal or other cause of contamination of the milk.
10. Exclusion of water supply, if contaminated, until adequately treated with hypochlorite or other efficient disinfectant, or unless all water used for toilet, cooking, and drinking purposes is boiled before use.

**Plague**

(Bubonic, Septicemic, Pneumonic)

1. *Infectious agent*.—Plague bacillus; *Pasteurella pestis*.
2. *Source of infection*.—Blood of infected persons and animals, and sputum of human cases of plague pneumonia.
3. *Mode of transmission*.—Direct, in the pneumonic form. In other forms the disease is generally transmitted by the bites of fleas (*Xenopsylla cheopis* and *Ceratophyllus fasciatus*), by which the disease is carried from rats to man, also by fleas from other rodents. Accidental, by inoculation, or by the bites of infected animals. Bedbugs may transmit the infection; flies may possibly convey the infection.
4. *Incubation period*.—Commonly from 3 to 7 days, although occasionally prolonged to 8 or even 14 days.
5. *Period of communicability*.—Until convalescence is well established, period undetermined.
6. *Methods of control*:

## (A) The infected individual and his environment—

1. Recognition of the disease—Clinical symptoms, confirmed by bacteriological examination of blood, pus from glandular lesions, or sputum. Animal inoculation of material from suspected cases.
2. Isolation—Patient in hospital if practicable; if not, in a screened room which is free from vermin.<sup>3</sup>

<sup>2</sup> The human disease paratyphoid fever should not be confused with cases of food poisoning or infection due to enteritidis bacilli of animal origin.

<sup>3</sup> In plague pneumonia, personal prophylaxis, to avoid droplet infection must be carried out by persons who come in contact with the sick. Masks of closely woven cloth with mica windows should be worn over the head and to the shoulders. A long gown and rubber gloves drawn over the sleeves of the gown should be provided. These articles should not be removed from the sick room until disinfected.

6. *Methods of control*—Continued.

## (A) The infected individual and his environment—Continued.

3. Immunization—Active immunization of those who may be exposed.
4. Quarantine—Contacts for seven days.
5. Concurrent disinfection—All discharges and articles freshly soiled therewith.
6. Terminal disinfection—Thorough cleaning followed by thorough disinfection.

## (B) General measures—

1. Extermination of rats and vermin by use of known methods for their destruction; destruction of rats on ships arriving from infected ports; examination of rats, ground squirrels etc., in areas where the infection persists, for evidence of endemic or epidemic prevalence of the disease among them.
2. Supervision of autopsies of all deaths during epidemics.
3. Supervision of the disposal of the dead during epidemics, whether by burial, transfer, or holding in vault, whatever the cause of death.
4. Cremation, or burial in quicklime, of those dying of this disease.

**Pneumonia****Acute Lobar**

1. *Infectious agent*.—Various pathogenic bacteria commonly found in the nose, throat, and mouth, such as the pneumococcus, the bacillus of Friedlander, the influenza bacillus, etc.
2. *Source of infection*.—Discharges from the mouth and nose of apparently healthy carriers, as well as of recognized infected individuals, and articles freshly soiled with such discharges.
3. *Mode of transmission*.—By direct contact with an infected person, or with articles freshly soiled with the discharges from the nose or throat of, and possibly from infected dust of rooms occupied by, infected persons.
4. *Incubation period*.—Short, usually two to three days.
5. *Period of communicability*.—Unknown; presumably until the mouth and nasal discharges no longer carry the infectious agent in an abundant amount or in a virulent form.
6. *Methods of control*:

## (A) The infected individual and his environment—

1. Recognition of the disease—Clinical symptoms. Specific infecting organisms may be determined by serological and bacteriological tests early in the course of the disease.
2. Isolation—Patient during clinical course of the disease.
3. Immunization—None; vaccines are worthy of further careful trial.
4. Quarantine—None.
5. Concurrent disinfection—Discharges from the nose and throat of the patient.
6. Terminal disinfection—Thorough cleaning, airing, and sunning.

## (B) General measures—

In institutions and camps, when practicable, people in large numbers should not be congregated closely within doors. The general resistance should be conserved by good feeding, fresh air, temperance in the use of alcoholic beverages, and other hygienic measures.

NOTE.—The early reporting of pneumonia is highly desirable in view of its communicability.

### Poliomyelitis

1. *Infectious agent*.—A filterable virus of undetermined morphology.
2. *Source of infection*.—Nose, throat, and bowel discharges of infected persons or articles recently soiled therewith. Healthy carriers are supposed to be common.
3. *Mode of transmission*.—By direct contact with an infected person or with a carrier of the virus, or indirectly by contact with articles freshly soiled with the nose, throat, or bowel discharges of such persons, and probably by drinking milk contaminated by the nose, mouth and bowel discharges of persons in the active stage of the disease.
4. *Incubation period*.—Uncertain because of inexact information as to period of communicability and essentials for exposure, but believed to be from 3 to 10 days, commonly 6 days.
5. *Period of communicability*.—Unknown; apparently not more than 21 days from the onset of disease, but may precede onset of clinical symptoms by several days.
6. *Methods of control*:
  - (A) The infected individual and his environment—
    1. Recognition of the disease—Clinical symptoms, assisted by chemical and microscopical examination of the spinal fluid.
    2. Isolation of all recognized cases for three weeks from febrile onset.
    3. Immunization—None.
    4. Quarantine of exposed children of the household and of adults of the household whose vocation brings them into contact with children, or who are food handlers, for 14 days from last exposure to a recognized case.
    5. Concurrent disinfection—Nose, throat, and bowel discharges and articles soiled therewith.
    6. Terminal disinfection—Cleaning.
  - (B) General measures during epidemics—
    1. Search for and examination of all sick children should be made.
    2. All children with fever should be isolated pending diagnosis.
    3. Education in such technique of bedside nursing as will prevent the distribution of infectious discharges to others from cases isolated at home.

### Rabies

1. *Infectious agent*.—Unknown.
2. *Source of infection*.—Saliva of infected animals, chiefly dogs.
3. *Mode of transmission*.—Inoculation with saliva of infected animals through abrasion of skin or mucous membrane, almost always by bites or scratches.
4. *Incubation period*.—Usually two to six weeks. May be prolonged to 6 months or even longer.
5. *Period of communicability*.—For 15 days in the dog (not known in man) before the onset of clinical symptoms and throughout the clinical course of the disease.
6. *Methods of control*:
  - (A) The infected individual and his environment—
    1. Recognition of the disease—Clinical symptoms, confirmed by the presence of Negri bodies in the brain of an infected animal, or by animal inoculations with material from the brain of such infected animal.

6. *Methods of control*—Continued.

## (A) The infected individual and his environment—Continued.

2. Isolation—None if patient is under adequate medical supervision, and the immediate attendants are warned of possibility of inoculation by human virus.
3. Immunization—Preventive vaccination after exposure to infection by inoculation.
4. Quarantine—None.
5. Concurrent disinfection of saliva of patient and articles soiled therewith.
6. Terminal disinfection—Thorough cleaning.

## (B) General measures—

1. Muzzling of dogs when on public streets, or in places to which the public has access.
2. Detention and examination of dogs suspected of having rabies.
3. Immediate antirabic treatment of people bitten by dogs or by other animals suspected or known to have rabies, unless the animal is proved not to be rabid by subsequent observation or by microscopic examination of the brain and cord.
4. Annual immunization of dogs where the disease is prevalent.

**Rocky Mountain Spotted or Tick Fever**1. *Infectious agent*.—Unknown.2. *Source of infection*.—Blood of infected animals, and infected ticks (dermacentor species).3. *Mode of transmission*.—By bites of infected ticks.4. *Incubation period*.—Three to ten days, usually seven days.5. *Period of communicability*.—Has not been definitely determined, probably during the febrile stage of the disease.6. *Methods of control*:

## (A) The infected individual and his environment—

1. Recognition of the disease—By clinical symptoms of the disease in areas where the disease is known to be endemic.
2. Isolation—None, other than care exercised to protect patients from tick bites when in endemic areas.
3. Immunization—The use of the Spencer-Parker vaccine in infected areas has given generally favorable results, but is still in the experimental stage.
4. Quarantine—None.
5. Concurrent disinfection—None. All ticks on the patient should be destroyed.
6. Terminal disinfection—None.

## (B) General measures—

1. Personal prophylaxis of persons entering the infected zones during the season of ticks, by wearing tick-proof clothing, and careful daily search of the body for ticks which may have attached themselves.
2. The destruction of ticks by clearing and burning vegetation on the land in infected zones.
3. The destruction of ticks on domestic animals by dipping, and the pasturing of sheep on tick-infested areas where the disease is prevalent, with the object of diminishing the number of ticks.
4. The destruction of small mammalian hosts, as ground squirrels, chipmunks, etc.



### Scarlet Fever

1. *Infectious agent.*—*Streptococcus scarlatinae*.
2. *Source of infection.*—Discharges from the nose, throat, ears, abscesses or wound surfaces, and articles freshly soiled therewith. The nose and throat discharges of carriers may also spread the disease.
3. *Mode of transmission.*—Directly by personal contact with an infected person; indirectly by articles freshly soiled with discharges of an infected person, or through contaminated milk, or milk products.
4. *Incubation period.*—Two to seven days, usually three or four days.
5. *Period of communicability.*—Three weeks from the onset of the disease, without regard to the stage or extent of desquamation, and only after all abnormal discharges have ceased and all open sores or wounds have healed.

6. *Methods of control.*—

(A) The infected individual and his environment—

1. Recognition of the disease—By clinical symptoms.
2. *Isolation*—In home or hospital, maintained in each case until the end of the period of infectivity. If medical inspection is not available, isolation for 28 days from onset.
3. Immunization—Exposed susceptibles as determined by the Dick test may be actively immunized by scarlet fever toxin.
4. *Quarantine*—Exclusion of exposed children and teachers from school, and food handlers from their work, until seven days have elapsed since last exposure to a recognized case.
5. Concurrent disinfection—Of all articles which have been in contact with a patient and all articles soiled with discharges of the patient.
6. Terminal disinfection—Thorough cleaning.

(B) General measures—

1. Daily examination of exposed children and of other possibly exposed persons for a week after last exposure.
2. Schools should not be closed where daily observation of the children by a physician or nurse can be provided for.
3. In school and institutional outbreaks immunization of all exposed children with scarlet fever toxin may be advisable.
4. Education as to special danger of exposing young children to those exhibiting acute catarrhal symptoms of any kind.
5. Pasteurization of milk supply.

### Septic Sore Throat

1. *Infectious agent.*—*Streptococcus* (hemolytic type).
2. *Source of infection.*—The human naso-pharynx, usually the tonsils, any case of acute streptococcus inflammation of these structures being a potential source of infection, including the period of convalescence of such cases. The udder of a cow infected by the milker is a common source of infection. In such udders the physical signs of mastitis may be absent.<sup>4</sup>
3. *Mode of transmission.*—Direct or indirect human contact; consumption of raw milk contaminated by case or carrier or from an infected udder.
4. *Incubation period.*—One to three days.

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<sup>4</sup> Mastitis in the cow, due to bovine streptococci, is not a cause of septic sore throat in humans unless a secondary infection of the udder by a human type of streptococcus takes place.

5. *Period of communicability.*—In man, presumably during the continuance of clinical symptoms; in the cow, during the continuance of discharge of the streptococci in the milk, the condition in the udder tending to a spontaneous subsidence. The carrier stage may follow convalescence and persist for some time.
6. *Methods of control:*
  - (A) The infected individual and his environment—
    1. Recognition of the disease—Clinical symptoms. Bacteriological examination of the lesions or discharges from the tonsils and naso-pharynx may be useful.
    2. Isolation—During the clinical course of the disease and convalescence, and particularly exclusion of the patient from participation in the production or handling of milk or milk products.
    3. Immunization—None.
    4. Quarantine—None.
    5. Concurrent disinfection—Articles soiled with discharges from the nose and throat of the patient.
    6. Terminal disinfection—Cleaning.
  - (B) General measures—
    1. Exclusion of suspected milk supply from public sale or use, until Pasteurized. The exclusion of the milk of an infected cow or cows in small herds is possible when based on bacteriological examination of the milk of each cow, and preferably the milk from each quarter of the udder at frequent intervals. Exclusion of human cases or carriers from handling milk or milk products.
    2. Pasteurization of all milk.
    3. Education in the principles of personal hygiene and avoidance of the use of common towel, drinking and eating utensils.

### Smallpox

1. *Infectious agent.*—Unknown.
2. *Source of infection.*—Lesions of the mucous membranes and skin of infected persons.
3. *Mode of transmission.*—By direct personal contact; by articles soiled with discharges from lesions. The virus may be present in all body discharges, including feces and urine. It may be carried by flies.
4. *Incubation period.*—Eight to sixteen days. (Cases with incubation period of 21 days are reported.)
5. *Period of communicability.*—From first symptoms to disappearance of all scabs and crusts.
6. *Methods of control:*
  - (A) The infected individual and his environment—
    1. Recognition of the disease—Clinical symptoms. Tests for immunity may prove useful.
    2. Isolation—Hospital isolation in screened wards, free from vermin, until the period of infectivity is over.
    3. Immunization—Vaccination.
    4. Quarantine—Isolation of all contacts until vaccinated with virus of full potency. Daily medical observation of all recently vaccinated contacts until height of reaction is passed, if vaccination was performed within 24 hours of first exposure, otherwise for 16 days from last exposure.

6. *Methods of control*—Continued.

(A) The infected individual and his environment—Continued.

5. **Concurrent disinfection of all discharges.** No article to leave the surroundings of the patient without boiling or equally effective disinfection.

6. **Terminal disinfection**—Thorough cleaning and disinfection of premises.

(B) General measures—

**General vaccination in infancy, revaccination of children on entering school, and of entire population when the disease appears in a severe form.**

**NOTE**—In order to avoid possible complications or secondary and subsequent infections at the site of vaccination, it is important that the vaccination insertion be as small as practicable, not over one-eighth inch in any direction, and that the site be kept dry and cool. The prick-pressure method as recommended by the United States Public Health Service, or the single scratch method is preferred. Primary vaccination between the ages of two and three months is particularly desirable. The time of vaccination should be adjusted to avoid skin lesions elsewhere on the body, in infants to avoid teething, and in older children to avoid the warmer months. Particular care should be used in primary vaccinations beyond the age of infancy.

### Syphilis

1. *Infectious agent*.—*Treponema pallidum*.

2. *Source of infection*.—Discharges from the lesions of the skin and mucous membranes, and the blood of infected persons, and articles freshly soiled with such discharges or blood in which the *Treponema pallidum* is present.

3. *Mode of transmission*.—By direct personal contact with infected persons, and indirectly by contact with discharges from lesions or with the blood of such persons.

4. *Incubation period*.—About three weeks. (In rare instances reported to have been as long as 70 days.)

5. *Period of communicability*.—As long as the lesions are open upon the skin, or mucous membranes at any stage of the disease.

6. *Methods of control*:

(A) The infected individual and his environment—

1. Recognition of the disease—Clinical symptoms, confirmed by microscopical examination of discharges and by serum reactions.

2. Isolation—Exclusion from sexual contact and from preparation or serving of food during the early and active period of the disease; otherwise none, unless the patient is unwilling to heed, or is incapable of observing, the precautions required by the medical advisor.

3. Immunization—None.

4. Quarantine—None.

5. Concurrent disinfection of discharges and of articles soiled therewith.

6. Terminal disinfection—None.

(B) General measures—

1. Education in matters of sexual hygiene, particularly as to the fact that continence in both sexes and at all ages is compatible with health and normal development.

2. Provision for accurate and early diagnosis and treatment, in hospitals and dispensaries, of infected persons, with consideration for privacy of record, and provision for following cases until cured.

*Methods of control—Continued.*

## (B) General measures—Continued.

3. Repression of prostitution by use of the police power and control of use of living premises.
4. Restriction of sale of alcoholic beverages.
5. Restriction of advertising of services or medicines for treatment of sex diseases, etc.
6. Abandonment of the use of common towels, cups, and toilet articles and eating utensils.
7. Exclusion of persons in the communicable stage of the disease from participation in the preparing and serving of food.
8. Personal prophylaxis should be advised to those who expose themselves to opportunity to infection.

**Tetanus**

1. *Infectious agent.*—Tetanus bacillus; *Clostridium tetani*.
2. *Source of infection.*—Animal manure, soil, and street dust.
3. *Mode of transmission.*—Inoculation, or wound infection.
4. *Incubation period.*—Four days to three weeks, or longer if latent bacilli deposited in the tissues are stirred to activity by subsequent chemical or mechanical irritation. Commonly 8 to 10 days.
5. *Period of communicability.*—Patient not infectious except in rare instances where wound discharges are infectious.
6. *Methods of control:*

## (A) The infected individual and his environment—

1. Recognition of the disease—Clinical symptoms; may be confirmed bacteriologically.
2. Isolation—None.
3. Immunization—By at least one, and preferably two, injections of antitoxin.
4. Quarantine—None.
5. Concurrent disinfection—None.
6. Terminal disinfection—None.

## (B) General measures—

1. Supervision of the practice of obstetrics.
2. Educational propaganda such as "safety-first" campaign, and "safe and sane Fourth of July" campaign.
3. Prophylactic use of tetanus antitoxin where wounds have been acquired in regions where the soil is known to be heavily contaminated, and in all cases where wounds are ragged or penetrating.
4. Removal of all foreign matter as early as possible from all wounds.
5. Supervision of biological products, especially vaccines and sera.

**Trachoma**

1. *Infectious agent.*<sup>1</sup>—The chief, although not yet known to be the only, infectious agents are the hemoglobinophilic bacilli including the so-called Koch-Weeks bacillus.
2. *Source of infection.*—Secretions and purulent discharges from the conjunctivae and adnexed mucous membranes of the infected persons.

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<sup>1</sup>It has not yet been proven that trachoma is due to one specific organism.



3. *Mode of transmission*.—By direct contact with infected persons and indirectly by contact with articles freshly soiled with the infective discharges of such persons.
4. *Incubation period*.—Undetermined.
5. *Period of communicability*.—During the persistence of lesions of the conjunctivæ and of the adnexed mucous membranes or of discharges from such lesions.
6. *Methods of control*:
  - (A) The infected individual and his environment—
    1. Recognition of the disease—Clinical symptoms. Bacteriological examination of the conjunctival secretions and lesions may be useful.
    2. Isolation—Exclusion of the patient from general school classes.
    3. Immunization—None.
    4. Quarantine—None.
    5. Concurrent disinfection of discharges and articles soiled therewith.
    6. Terminal disinfection—None.
  - (B) General measures—
    1. Search for cases by examination of school children, of immigrants, and among the families and associates of recognized cases; in addition, search for acute secreting disease of conjunctivæ and adnexed mucous membranes, both among school children and in their families, and treatment of such cases until cured.
    2. Elimination of common towels and toilet articles from public places.
    3. Education in the principles of personal cleanliness and the necessity of avoiding direct or indirect transference of body discharges.
    4. Control of public dispensaries where communicable eye diseases are treated.

### Trichinosis

1. *Infectious agent*.—*Trichinella spiralis*.
2. *Source of infection*.—Uncooked or insufficiently cooked meat of infected hogs.
3. *Mode of transmission*.—Consumption of undercooked infected pork products.
4. *Incubation period*.—Variable; usually about one week.
5. *Period of communicability*.—Disease is not transmitted by human host.
6. *Methods of control*:
  - (A) The infected individual and his environment—
    1. Recognition of the disease—Clinical symptoms, confirmed by microscopical examination of muscle tissue containing trichinæ.
    2. Isolation—None.
    3. Immunization—None.
    4. Quarantine—None.
    5. Concurrent disinfection—Sanitary disposal of the feces of the patient.
    6. Terminal disinfection—None.
  - (B) General measures—
    1. Inspection of pork products for the detection of trichinosis.
    2. Thorough cooking of all pork products at a temperature of 160° F. or over.

**Tuberculosis (Pulmonary)**

1. *Infectious agent*.—Tubercle bacillus (human), *Mycobacterium tuberculosis (hominis)*.
2. *Source of infection*.—The specific organism present in the discharges, or articles freshly soiled with the discharges from any open tuberculous lesions, the most important discharge being sputum. Of less importance are discharges from the intestinal and genito-urinary tracts, or from lesions of the lymphatic glands, bone, and skin.
3. *Mode of transmission*.—Direct or indirect contact with an infected person by coughing, sneezing, or other droplet infection, kissing, common use of unsterilized food utensils, pipes, toys, drinking cups, etc., and possibly by contaminated flies and dust.
4. *Incubation period*.—Variable and dependent upon the type of the disease.
5. *Period of communicability*.—Exists as long as the specific organism is eliminated by the host. Commences when a lesion becomes an open one—i. e., discharging tubercle bacilli, and continues until it heals or death occurs.
6. *Methods of control*:

(A) The infected individual and his environment—

1. Recognition of the disease—By thorough physical examination supplemented by use of the X ray and specific skin reactions when necessary and confirmed by bacteriological examinations of sputum or other materials.
2. Isolation of such "open" cases as do not observe the precautions necessary to prevent the spread of the disease.
3. Immunization—None.
4. Quarantine—None.
5. Concurrent disinfection of sputum and articles soiled with it.  
Particular attention should be paid to prompt disposal or disinfection of sputum itself, of handkerchiefs, cloths, or paper soiled therewith, and of eating utensils used by the patient.
6. Terminal disinfection—Cleaning and renovation.

(B) General measures—

1. Education of the public in regard to the dangers of tuberculosis and the methods of control, with especial stress upon the danger of exposure and infection in early childhood.
2. Provision of dispensaries and visiting-nurse service for discovery of early cases and supervision of home cases.
3. Provision of hospitals for isolation of advanced cases, and sanatoria for the treatment of early cases.
4. Provision of open-air schools and preventoria for pretuberculous children.
5. Improvement of housing conditions and the nutrition of the poor.
6. Ventilation and elimination of dust in industrial establishments and places of public assembly.
7. Improvement of habits of personal hygiene and betterment of general living conditions.
8. Separation of babies from tuberculous mothers at birth.

**Tuberculosis (other than Pulmonary)**

1. *Infectious agent*.—Tubercle bacillus (human and bovine), *Mycobacterium tuberculosis (hominis et bovis)*.
2. *Source of infection*.—Discharges from mouth, nose, bowels, and genito-urinary tract of infected humans; articles freshly soiled with such discharges; milk from tuberculous cattle; rarely the discharging lesion of bones, joints, and lymph nodes.
3. *Mode of transmission*.—By direct contact with infected persons, by contaminated food, and possibly by contact with articles freshly soiled with the discharges of infected persons.
4. *Incubation period*.—Unknown.
5. *Period of communicability*.—Until lesions are healed.
6. *Methods of control*:

(A) The infected individual and his environment—

1. Recognition of the disease—Clinical symptoms confirmed by bacteriological and serological examinations.
2. Isolation—None.
3. Immunization—None.
4. Quarantine—None.
5. Concurrent disinfection—Discharges and articles freshly soiled with them.
6. Terminal disinfection—Cleaning.

(B) General measures—

1. Pasteurization of milk and inspection of meats.
2. Eradication of tuberculous cows from milch herds used in supplying raw milk.
3. Patients with open lesions should be prohibited from handling foods which are consumed raw.

**Tularemia**

1. *Infectious agent*.—*Bacterium tularense*; *Pasteurella tularensis*.
2. *Source of infection*.—Wild rabbits and ground squirrels; also infected laboratory animals—infected flies (*Chrysops discalis*) and ticks (*Dermacentor andersoni*).
3. *Mode of transmission*.—By bites of infected flies and ticks and by inoculation through handling infected animals, as in dressing rabbits for market and cooking, or in performing necropsies on infected laboratory animals. Eye infections have been caused by contamination of the conjunctival sac with portions of the internal organs or with the body fluids of infected flies, ticks, and wild rabbits.
4. *Incubation period*.—From 24 hours to 9 days; average slightly more than 3 days.
5. *Period of communicability*.—There is no authentic record of transfer of the disease from man to man. The infection has been found in the blood during the first two weeks; in conjunctival scrapings and in lymph glands up to 17 days; in the spleen taken at autopsy up to 26 days. Flies are infective for 14 days, ticks throughout their lifetime. Refrigerated wild rabbits are infective for three weeks.

**6. Methods of control:****(A) The infected individual and his environment—**

1. Recognition of the disease. By clinical symptoms of the disease, by animal inoculation of infected material, and by agglutination reactions.
2. Isolation—None.
3. Immunization—None.
4. Quarantine—None.
5. Concurrent disinfection. Disinfection of discharges from the ulcer, lymph glands, or conjunctival sac.
6. Terminal disinfection—None.

**(B) General measures—**

1. Avoidance of the bites of, or handling of, flies and ticks when working in the infected zones during the seasonal incidence of the deer fly and tick.
2. The use of rubber gloves by persons engaged in dressing wild rabbits wherever taken, or when performing necropsies on infected laboratory animals. Employment of immune persons for dressing wild rabbits or conducting laboratory experiments. Thorough cooking of meat of wild rabbits.

**Typhoid Fever**

1. *Infectious agent.*—Typhoid bacillus, *Ebertheldia typhi*.
2. *Source of infection.*—Bowel discharges and urine of infected individuals. Healthy carriers are common.
3. *Mode of transmission.*—Conveyance of the specific organism by direct or indirect contact with a source of infection. Among indirect means of transmission are contaminated water, milk, and shellfish. Contaminated flies have been common means of transmission in epidemics.
4. *Incubation period.*—From 7 to 23 days, averaging 10 to 14 days.
5. *Period of communicability.*—From the appearance of prodromal symptoms, throughout the illness and relapses during convalescence, and until repeated bacteriological examinations of the discharges show persistent absence of the infecting organism.
6. *Methods of control:*

**(A) The infected individual and his environment—**

1. Recognition of the disease—Clinical symptoms, confirmed by specific agglutination test and bacteriological examination of blood, bowel discharges, or urine.
2. Isolation—In fly-proof room, preferably under hospital conditions, of such cases as can not command adequate sanitary environment and nursing care in their homes. Release from isolation should be determined by two successive negative cultures of stool and urine specimens collected not less than twenty-four hours apart.
3. Immunization—Of susceptibles in the family or household of the patient who have been exposed, or may be exposed during the course of the disease.
4. Quarantine—None.
5. Concurrent disinfection—Disinfection of all bowel and urinary discharges and articles soiled with them.
6. Terminal disinfection—Cleaning.



6. *Methods of control*—Continued.

## (B) General measures—

1. **Protection and purification of public water supplies.**
2. **Pasteurization of public milk supplies.**
3. Supervision of other food supplies, and of food handlers.
4. Prevention of fly breeding.
5. Sanitary disposal of human excreta.
6. Extension of immunization by vaccination as far as practicable in communities where the disease is prevalent.
7. Supervision of typhoid carriers and their exclusion from the handling of foods.
8. Systematic examination of fecal specimens from those who have been in contact with recognized cases, to detect carriers.
9. Persons who fail to show a strongly positive Widal reaction and contemplate traveling, should protect themselves by vaccination.
10. Exclusion of suspected milk supplies pending discovery of the person or other cause of contamination of the milk.
11. Exclusion of water supply, if contaminated, until adequately treated with hypochlorite or other efficient disinfectant, or unless all water used for toilet, cooking, and drinking purposes is boiled before use.

**Typhus Fever**

1. *Infectious agent.*—*Rickettsia prowazeki* is believed to be the causative agent.
2. *Source of infection.*—The blood of infected individuals.
3. *Mode of transmission.*—Infectious agent transmitted by lice. (*Pediculus corporis*, *P. capitis*.)
4. *Incubation period.*—Five to 20 days, usually 12 days.
5. *Period of communicability.*—Until 36 hours have elapsed after the temperature reaches normal.
6. *Methods of control:*

## (A) The infected individual and his environment—

1. Recognition of the disease—Clinical symptoms. Confirmation by agglutination tests ("Weil-Felix" reaction).
2. **Isolation—In a vermin-free room. All attendants should wear vermin-proof clothing.**
3. Immunization—Methods for immunization not generally accepted.
4. Quarantine—Exposed susceptibles for 14 days after last exposure.
5. Concurrent disinfection—None.
6. Terminal disinfection—Destroy all vermin and vermin eggs on body of patient, if not already accomplished. Destroy all vermin and eggs on clothing. Rooms to be rendered free from vermin.

## (B) General measures—

**Delousing of persons, clothing, and premises during epidemics, or when they have come or have been brought into an uninfected place from an infected community.**

### Whooping Cough

1. *Infectious agent*.—Pertussis bacillus of Bordet and Gengou, *Hemophilus pertussis*.
2. *Source of infection*.—Discharges from the laryngeal and bronchial mucous membranes of infected persons (rarely also of infected dogs and cats, which are known to be susceptible).
3. *Mode of transmission*.—Contact with an infected person or animal or with articles freshly soiled with the discharges of such person or animal.
4. *Incubation period*.—Commonly seven days, almost uniformly within 10 days.
5. *Period of communicability*.—Particularly communicable in the early catarrhal stages before the characteristic whoop makes a clinical diagnosis possible. The catarrhal stage occupies from 7 to 14 days. After the characteristic whoop has appeared the communicable period continues certainly for three weeks. Even if the spasmodic cough with whoop persists longer than this it is most unlikely that the infecting organism can be isolated from the discharges. The communicable stage must be considered to extend from seven days after exposure to an infected individual to three weeks after the development of the characteristic whoop.

#### 6. *Methods of control*:

##### (A) The infected individual and his environment—

1. *Recognition of the disease*—Clinical symptoms, supported by a differential leucocyte count, and confirmed where possible by bacteriological examination of bronchial secretions. A positive diagnosis may be made by bacteriological examination of laryngeal discharges as early as one week before the development of the characteristic whoop.
2. *Isolation*—Separation of the patient from susceptible children, and exclusion of the patient from school and public places for the period of presumed infectivity.
3. *Immunization*—Use of prophylactic vaccination recommended by some observers. Not effective in all cases.
4. *Quarantine*—Limited to the exclusion of nonimmune children from school and public gatherings for 10 days after their last exposure to a recognized case.
5. *Concurrent disinfection*—Discharges from the nose and throat of the patient and articles soiled with such discharges.
6. *Terminal disinfection*—Cleaning of the premises used by the patient.

##### (B) General measures—

Education in habits of personal cleanliness and in the dangers of association or contact with those showing catarrhal symptoms with cough.

### Yellow Fever

1. *Infectious agent*.—Unknown.
2. *Source of infection*.—The blood of infected persons.
3. *Mode of transmission*.—By the bite of infected *Aedes ægypti* mosquitoes.
4. *Incubation period*.—Three to five days, occasionally six days.
5. *Period of communicability*.—First three days of the fever.

**6. Methods of control:****(A) The infected individual and his environment—**

1. Recognition of the disease—Clinical symptoms.
2. Isolation—Isolate from mosquitoes in a special hospital ward or thoroughly screened room. If necessary the room or ward should be freed from mosquitoes by fumigation. Isolation necessary only for the first three days of the fever.
3. Immunization—None.
4. Quarantine—Contacts for six days.
5. Concurrent disinfection—None.
6. Terminal disinfection—None. Upon termination of case the premises should be rendered free from mosquitoes by fumigation.

**(B) General measures—**

Eliminate mosquitoes by rendering breeding impossible.

**(C) Epidemic measures—**

1. Inspection service for the detection of those ill with the disease.
2. Fumigation of houses in which cases of disease have occurred and of all adjacent houses.
3. Destruction of *Aedes ægypti* mosquitoes by fumigation; use of larvicides; eradication of breeding places.

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**PUBLIC HEALTH ENGINEERING ABSTRACTS**

**Water and Milk Borne Diseases.** L. A. Suggs. (Proceedings of the Eighth Texas Water Works Short School, Texas Section, January 18–23, 1926, pp. 15–18. Abstract by L. A. Suggs.)

The water-borne diseases treated by the author in this article include typhoid fever, dysentery, cholera, and hookworm. Typhoid fever is a sanitary problem of the first magnitude. An outbreak of the disease is a reproach to the sanitation of any community. The germ enters the human body by the mouth and passes out by the bowels and urine. Its normal habitat is the alimentary canal of man and it soon dies in any other medium, with the exception of milk in which it grows well. If exposed for 20 minutes to a temperature of 60° C. the germ will be destroyed.

Sanitation has practically eliminated cholera. Hookworm is carried by water but 90 per cent of the infections enter the human body through the skin. All dysenteries are considered under one head. They are carried in the same way as typhoid.

The diseases most commonly conveyed by milk are tuberculosis (all types), typhoid fever, diphtheria, scarlet fever, septic sore throat, Malta fever, summer complaint of children, and diarrhea and dysentery of adults which are referable to milk. Tuberculosis is the most frequent and widespread of all the major infections. Milk is responsible for more sickness and deaths than any other food, possibly as much as all other foods combined. Science points the way out, if society will apply the knowledge. The reason bacteria grow most

luxuriantly in milk is because it is most difficult of all foods to deliver clean, is most readily decomposed, and is the only standard article of diet obtained from animal sources consumed in the raw state. Scientific filtration of water and the proper and intelligent inspection of milk have materially reduced those diseases within the last few years.

**Viability of *Bacillus Typhosus* in Oysters During Storage.** Fred O. Tonney, M. D., and John L. White, M. D. *Journal of the American Medical Association*, vol. 84, May 9, 1925, pp. 1403-1406. (Abstract by R. E. Tarbett.)

This article covers studies made in the laboratories of the Chicago Department of Health to determine the survival of *B. typhosus* in stored, shucked and shell oysters. Shell oysters were allowed to remain in 4 per cent sea salt water to which a 24-hour culture of *B. typhosus* had been added for a period of 48 hours; temperature of the water 60° to 70° F. The *B. typhosus* count on the sea salt water was 200,000,000 per cubic centimeter. The oysters were stored at 70° and 45° F. One gallon of shucked oysters was contaminated by adding a 24-hour culture of *B. typhosus* and allowed to stand 48 hours at 70° F. Each oyster, with 10 cubic centimeters of liquor, was then placed in a test tube. Three lots were stored at 98°, 70° and 45° F. The oyster juice subsequent to inoculation showed 74,000,000 *B. typhosus* per cubic centimeter.

Endo's medium was used for making counts and colonies checked.

The results for shell oysters showed that at a storage temperature of 70° F. the organism could be found in fairly large numbers up to the eighth day, all oysters being dead by the seventh day, and at the storage temperature of 45° F. up to the sixtieth day, at which time all oysters were dead. *B. typhosus* were found on the shells after 23 days storage.

The results for the shucked oysters showed that at a storage temperature of 98° F. the organisms disappeared between the first and fourth day, the oysters going sour during the first day. At a storage temperature of 70° F. the organism was found in a fairly large number on the seventh day, the oysters souring on the first day. At a storage temperature of 45° F., the organism was found on the twenty-second day, the oysters souring on the fifth day.

The results showed that the longevity of *B. typhosus* in the oyster juice of both shell and shucked oysters varied with temperature at which stored, being prolonged with the lower temperature, and that the microorganisms survive for a longer period than do the oysters.

**Nonthermophilic, Spore-forming Bacteria Associated with Pasteurizing Equipment.** A. H. Robertson, M. W. Yale and R. S. Breed (New York State Sta. Tech. Bul. 119 (1926), pp. 3-11, Pl. 1). From



*Experiment Station Record*, U. S. Dept. of Agriculture, vol. 55, No. 3, August, 1926, p. 268.

"The discovery of large rod-shaped, spore-forming bacteria in samples of Pasteurized milk which did not appear on agar plates or in the raw milk led to an investigation of the organisms of this type. A total of 140 cultures of such organisms was finally isolated from freshly Pasteurized milk, or from material scraped from the Pasteurizing equipment. Of these cultures 48 were identified as *Bacillus subtilis*, 29 as *B. mesentericus*, 22 as *B. vulgatus*, 21 as *B. circulans*, 10 as *B. albolacitis*, 2 as *B. laterosporus*, 1 as *B. panis*, 1 as *B. cereus*, and 1 as *B. mycoides*. Five cultures were not identified.

"It is concluded from the study that the presence of such organisms indicates that the Pasteurizing equipment has not been properly cleaned. These types do not appear on agar plates because the vegetative cells and a large majority of the spores have been killed by Pasteurization."

**Report on an Investigation of the Pollution of Lake Michigan in the Vicinity of South Chicago and the Calumet and Indiana Harbors, 1924-1925.** U. S. Public Health Service, 69 pages. (Abstract by Arthur P. Miller.)

In the summer of 1924, the trustees of the Sanitary District of Chicago, the commissioner of health of the city of Chicago, the director of health of the State of Illinois and the commissioner of health of the State of Indiana jointly requested the Surgeon General of the Public Health Service to cooperate with them in a study of the sewage pollution of Lake Michigan in the area adjacent to the so-called Calumet district, lying partly in Illinois and partly in Indiana. This request was granted and after certain preliminary surveys work was begun on September 18, 1924, under the immediate direction of Sanitary Engineer H. R. Crohurst, continuing until October 31, 1925. The report of the investigation in mimeograph form has recently been released.

Referring to the report, the study was intended to comprise as follows: "(1) Sanitary survey of the drainage area of the Calumet Rivers, bringing together such data as were already available from various sources and supplementing these by additional field surveys as required; (2) the bacteriological study of the waters of Lake Michigan in this region and of the public water supplies taken from it; (3) the collection and analysis of available data relative to the influence of existing pollution of these water supplies upon the public health."

A general discussion of the investigation, together with a statement of previous sanitary investigations, is first offered. Included in this first section there are also discussions of the influencing meteorological conditions, the lake elevation and currents and ice covering.

Important data concerning industrial wastes are given in the second section, which covers the survey of existing sources of pollution in the district under study.

The summary of the investigation of industrial plants states the following: "A total of 123 industrial plants were surveyed in the Calumet district. One hundred and nine of these discharge practically no offensive waste liquids, water being used only for condensing and cooling purposes in the power plants or for cooling in manufacturing processes, either in closed systems or in contact with products from which little offensive or taste-producing substances could be derived. The remaining 14 plants which discharge wastes of sanitary significance may be divided into two groups. One group includes plants discharging wastes containing appreciable amounts of organic material that might, under certain conditions, give rise to nuisances near the point of discharge. The second group includes plants discharging wastes containing possible taste-producing substances which affect water supplies, especially where chlorine is used in the treatment process."

The survey of sanitary sewerage is summarized in a table which sets forth the approximate distribution of sewer population in the Calumet district.

Physical, chemical, and bacteriological examinations of the waters of Lake Michigan are covered in the third section of this report in considerable detail. Discussions of the methods used for collecting and examining samples, as well as the laboratory technique and method followed in computing plate counts and *B. coli* index, are given. Following this there are discussions of the results of the various examinations made, as well as the different factors having a bearing on conditions existing. Several pages are devoted to findings as related to the bacteriological quality of municipal water supplies taken from the lake.

Conclusions drawn are short and concise and will, therefore, be taken directly from the report:

"The pollution of Lake Michigan by sanitary sewage and industrial wastes discharged from the Calumet district in Illinois and Indiana, especially from Indiana, is such as to render the sources of water supply now used by Hammond, Whiting, and East Chicago unfit for that purpose, even with elaborate and efficiently operated purification plants.

"The source of water supply of Gary, Ind., though lying outside of the zone of grossest pollution, is also seriously contaminated but not beyond the capacity of modern purification processes to safeguard it.

"The water supplies drawn by the city of Chicago from the Sixty-eighth Street and Dunne cribs are also affected and at times may be seriously endangered by sewage pollution from the Calumet district.

"The water supplies taken from the lake north of the Chicago River appear to be beyond the zone of pollution from the Calumet

district and are receiving water of such quality that it can be satisfactorily purified by artificial processes, excepting the supplies of Waukegan and Lake Forest. Although the pollution of these latter supplies is in no way chargeable to the Calumet district, and its discussion is beyond the scope of this report, the existing pollution in this area of the lake, north of the Sanitary District of Chicago, obviously demands attention and abatement.

"If the use of the lake as a source of water supply for the urban population in the area south of the Chicago River is to be continued, as seems inevitable, it is necessary, in the interest of the public health, that the water supply intakes be protected. To remove the intakes beyond the zone of at least occasional gross pollution would require their extension very far into the lake, to a distance which is probably not practicable. Moreover, in the absence of remedial measures it is to be anticipated that the existing zone of pollution would be extended with the increase in the population and development of the adjacent land area. Therefore the obvious remedy for the present intolerable situation is abatement of the existing pollution of the lake. The choice of methods to achieve this end involves engineering and economic problems which it is not within the province of this report to discuss. There is no question, however, that abatement of the existing pollution is possible notwithstanding the difficulties which it may present; and it is certain that the need is imperative."

The appendices of the report included 29 tables and 27 diagrams, the title of each of which is given in the index and is descriptive of the data contained in the table or shown in the diagram.

**Air Conditioning and its Hospital Application.** W. J. McConnell. *The Modern Hospital*, vol. 27, No. 2, August, 1926, p. 45. (Abstract by Leonard Greenburg.)

This paper presents a superficial survey of the problem of ventilation of the hospital. The author points out that "acceptable standards for hospital ventilation are lacking," but maintains that the need for mechanically purifying, heating, and otherwise conditioning the air of occupied places is now well recognized. For this reason the author urges that hospitals be equipped with systems for washing, humidifying, and heating the air which is to be supplied to the various rooms. In closing, he attempts to show that the cost of artificial ventilation is less than that of natural window ventilation when one takes into account the lesser bed space which may be obtained when natural ventilation is used.

It would be unfair to the reader of the engineering abstracts to pass over this paper without pointing out that Doctor McConnell cites no evidence for the harmfulness of ordinary city dust, and likewise cites no authority for the amount of dust or odors which may be removed by the ordinary spray washer. The evidence concerning the relation of humidity to disease is still open to further proof; the New York State Commission on Ventilation, for example,

failed to find any relation between respiratory disease and humidity. And, lastly, Doctor McConnell appears to be laboring under some misapprehension that it is necessary to provide a larger floor space per person with the window than with fan ventilation in hospitals.

### DEATHS DURING WEEK ENDED DECEMBER 4, 1926

*Summary of information received by telegraph from industrial insurance companies for week ended December 4, 1926, and corresponding week of 1925. (From the Weekly Health Index, December 8, 1926, issued by the Bureau of the Census, Department of Commerce)*

	Week ended Dec. 4, 1926	Corresponding week, 1925
Policies in force.....	66, 183, 596	62, 275, 844
Number of death claims.....	12, 548	11, 651
Death claims per 1,000 policies in force, annual rate.....	9.9	9.8

*Deaths from all causes in certain large cities of the United States during the week ended December 4, 1926, infant mortality, annual death rate, and comparison with corresponding week of 1925. (From the Weekly Health Index, December 8, 1926, issued by the Bureau of the Census, Department of Commerce)*

City	Week ended Dec. 4, 1926		Annual death rate per 1,000 cor- responding week, 1925	Deaths under 1 year		Infant mortality rate, week ended Dec. 4, 1925 <sup>1</sup>
	Total deaths	Death rate <sup>1</sup>		Week ended Dec 4, 1926	Corre- sponding week, 1925	
Total (65 cities).....	6,967	12.6	13.0	757	754	61
Akron.....	43			7	6	75
Albany.....	48	21.0	13.5	1	5	21
Atlanta.....	77			7	11	
White.....	39			2	4	
Colored.....	38	( <sup>9</sup> )		5	7	
Baltimore.....	195	12.6	14.5	25	22	76
White.....	153			20	9	75
Colored.....	42	( <sup>9</sup> )		5	13	80
Birmingham.....	71	17.5	14.4	8	9	
White.....	37			2	2	
Colored.....	34	( <sup>9</sup> )		6	7	
Boston.....	214	14.2	15.0	26	20	73
Bridgeport.....	26			0	2	0
Buffalo.....	136	13.0	15.8	20	20	84
Cambridge.....	30	12.8	13.5	5	2	89
Camden.....	33	13.1	17.0	5	8	84
Canton.....	19	9.0	14.2	1	4	22
Chicago.....	696	11.9	12.1	61	75	53
Cincinnati.....	132	16.7	15.4	13	10	81
Cleveland.....	168	9.1	11.4	16	18	42
Columbus.....	83	15.2	15.5	3	6	28
Dallas.....	48	12.3	9.9	5	9	
White.....	33			4	9	
Colored.....	15	( <sup>9</sup> )		1	0	
Dayton.....	45	13.3	13.0	9	4	148
Denver.....	82	15.0	16.0	6	9	
Des Moines.....	24	8.6	13.3	1	0	17
Detroit.....	250	10.1	12.5	35	44	57
Duluth.....	20	9.2	7.5	0	2	0
El Paso.....	27	12.9	12.4	6	4	
Erie.....	23			3	4	59
Fall River.....	37	14.7	17.0	4	7	63
Flint.....	22	8.4	6.8	2	4	34
Fort Worth.....	27	8.9	8.4	5	2	
White.....	21			3	2	
Colored.....	6	( <sup>9</sup> )		2	0	
Grand Rapids.....	38	12.7	13.5	2	6	29
Houston.....	62			11	7	
White.....	43			8	5	
Colored.....	19	( <sup>9</sup> )		3	2	
Indianapolis.....	96	13.6	15.1	8	8	61
White.....	81			5		44
Colored.....	15	( <sup>9</sup> )		3		172
Jersey City.....	67	11.0	9.3	5	6	38

(Footnotes at end of table)



*Deaths from all causes in certain large cities of the United States during the week ended December 4, 1926, infant mortality, annual death rate, and comparison with corresponding week of 1925—Continued*

City	Week ended Dec. 4, 1926		Annual death rate per 1,000 corresponding week, 1925	Deaths under 1 year		Infant mortality rate, week ended Dec. 4, 1926 <sup>1</sup>
	Total deaths	Death rate <sup>1</sup>		Week ended Dec. 4, 1926	Corresponding week, 1925	
Kansas City, Kans.	35	15.6	12.6	2	4	39
White	22			2	3	45
Colored	13	( <sup>2</sup> )		0	1	0
Kansas City, Mo.	89	12.4	15.1	8	5	
Los Angeles	270			24	18	67
Louisville	94	15.8	12.4	11	5	94
White	74			8	4	78
Colored	20	( <sup>2</sup> )		3	1	210
Lowell	37			7	4	135
Lynn	18	9.0	9.1	3	2	79
Memphis	49	14.4	19.7	6	8	
White	24			3	4	
Colored	25	( <sup>2</sup> )		3	4	
Milwaukee	95	9.6	11.2	15	22	71
Minneapolis	84	10.1	11.5	5	12	28
Nashville <sup>3</sup>	38	14.5	16.5	9	5	
New Bedford	18			4	4	69
New Haven	26	7.4	14.3	1	7	14
New Orleans	143	17.8	18.5	28	14	
White	92			18	11	
Colored	51	( <sup>2</sup> )		10	3	
New York	1,340	11.8	11.6	132	128	54
Bronx Borough	162	9.4	7.3	13	10	43
Brooklyn Borough	459	10.7	10.6	59	49	60
Manhattan Borough	562	15.6	15.7	42	58	47
Queens Borough	122	8.3	7.2	15	10	68
Richmond Borough	35	12.8	18.1	3	1	53
Newark, N. J.	90	10.2	12.7	17	14	82
Norfolk	33	9.9	10.5	4	2	81
White	9			0	2	0
Colored	24	( <sup>2</sup> )		4	0	212
Oakland	59	11.8	12.9	6	7	70
Oklahoma City	31			3	3	
Omaha	55	13.3	16.2	6	7	64
Paterson	33	12.0	11.4	2	6	34
Philadelphia	557	14.5	14.7	60	63	80
Pittsburgh	163	13.3	15.0	25	28	83
Portland, Oreg.	69			7	3	70
Providence	88	11.0	9.7	4	6	33
Richmond	42	11.6	15.1	4	7	50
White	22			2	3	39
Colored	20	( <sup>2</sup> )		2	4	69
Rochester	58	9.4	10.4	5	6	40
St. Louis	255	16.0	14.1	30	16	
St. Paul	50	10.5	12.1	3	2	26
Salt Lake City <sup>4</sup>	48	18.8	11.5	5	3	76
San Antonio	47	12.0	12.4	8	7	
San Diego	38	18.0	17.7	0	3	0
San Francisco	159	14.6	13.5	9	4	54
Schenectady	14	7.8	14.6	3	2	86
Seattle	74			5	0	48
Somerville	24	12.5	12.6	2	3	57
Spokane	43	20.6	11.5	7	1	162
Springfield, Mass.	37	13.3	10.6	4	6	62
Syracuse	40	11.3	12.0	5	6	63
Tacoma	30	14.8	10.5	3	0	71
Toledo	85	15.0	11.1	10	3	96
Trenton	43	16.7	10.8	5	9	85
Utica	36	18.2	12.3	3	3	68
Washington, D. C.	150	14.8	14.7	21	14	120
White	108			15	4	125
Colored	42	( <sup>2</sup> )		6	10	109
Waterbury	17			1	2	24
Wilmington, Del.	27	11.4	13.7	2	3	44
Worcester	46	12.4	13.4	4	5	48
Yonkers	28	12.6	8.7	8	2	180

<sup>1</sup> Annual rate per 1,000 population.

<sup>2</sup> Deaths under 1 year per 1,000 births. Cities left blank are not in registration area for births.

<sup>3</sup> Data for 63 cities.

<sup>4</sup> Deaths for week ended Friday, December 3, 1926.

<sup>5</sup> In the cities for which deaths are shown by color, the colored population in 1920 constituted the following percentages of the total population: Atlanta, 31; Baltimore, 15; Birmingham, 39; Dallas, 15; Fort Worth, 14; Houston, 25; Indianapolis, 11; Kansas City, Kans., 14; Louisville, 17; Memphis, 38; Nashville, 30; New Orleans, 28; Norfolk, 38; Richmond, 32; and Washington, D. C., 25.

# PREVALENCE OF DISEASE

*No health department, State or local, can effectively prevent or control disease without knowledge of when, where, and under what conditions cases are occurring*

## UNITED STATES

### CURRENT WEEKLY STATE REPORTS

These reports are preliminary and the figures are subject to change when later returns are received by the State health officers

#### Reports for Week Ended December 11, 1926

ALABAMA		ARKANSAS—continued	
	Cases		Cases
Cerebrospinal meningitis.....	1	Tuberculosis.....	4
Chicken pox.....	51	Typhoid fever.....	6
Diphtheria.....	72	Whooping cough.....	16
Influenza.....	44		
Malaria.....	12	CALIFORNIA	
Measles.....	14	Cerebrospinal meningitis—Orange County.....	1
Mumps.....	5	Chicken pox.....	469
Pellagra.....	5	Diphtheria.....	154
Pneumonia.....	55	Influenza.....	33
Scarlet fever.....	30	Jaundice (epidemic).....	2
Smallpox.....	77	Leprosy—Los Angeles.....	1
Trachoma.....	2	Lethargic encephalitis—San Francisco.....	1
Tuberculosis.....	69	Measles.....	990
Typhoid fever.....	11	Mumps.....	224
Typhus fever.....	1	Poliomyelitis:	
Whooping cough.....	19	Amador County.....	1
		Compton.....	1
ARIZONA		Long Beach.....	1
Chicken pox.....	25	Los Angeles.....	1
Diphtheria.....	8	San Joaquin County.....	1
Measles.....	4	Stanislaus County.....	1
Mumps.....	3	Scarlet fever.....	231
Paratyphoid fever.....	3	Smallpox.....	12
Pneumonia.....	1	Tuberculosis.....	139
Scarlet fever.....	20	Typhoid fever.....	10
Tuberculosis.....	14	Whooping cough.....	72
Whooping cough.....	12		
		COLORADO	
ARKANSAS		Chicken pox.....	51
Chicken pox.....	9	Diphtheria.....	21
Diphtheria.....	6	Dysentery.....	1
Influenza.....	104	German measles.....	2
Malaria.....	23	Influenza.....	1
Measles.....	16	Measles.....	15
Mumps.....	17	Mumps.....	21
Scarlet fever.....	5	Pneumonia.....	7
Smallpox.....	7	Scarlet fever.....	84

## COLORADO—continued

	Cases
Smallpox.....	6
Tuberculosis.....	28
Typhoid fever.....	2
Vincent's angina.....	1
Whooping cough.....	1

## CONNECTICUT

Chicken pox.....	119
Conjunctivitis (infectious).....	3
Diphtheria.....	37
German measles.....	2
Influenza.....	5
Measles.....	39
Mumps.....	12
Pneumonia (broncho).....	20
Pneumonia (lobar).....	32
Scarlet fever.....	52
Septic sore throat.....	3
Trichinosis.....	1
Tuberculosis (all forms).....	16
Typhoid fever.....	2
Whooping cough.....	30

## DELAWARE

Anthrax.....	1
Chicken pox.....	2
Diphtheria.....	3
Measles.....	2
Pneumonia.....	1
Poliomyelitis.....	1
Scarlet fever.....	27
Tuberculosis.....	4
Whooping cough.....	3

## FLORIDA

Chicken pox.....	29
Diphtheria.....	44
Dysentery.....	6
Hookworm disease.....	10
Influenza.....	20
Malaria.....	36
Measles.....	16
Mumps.....	3
Pneumonia.....	63
Poliomyelitis.....	3
Scarlet fever.....	15
Smallpox.....	24
Tuberculosis.....	130
Typhoid fever.....	18
Whooping cough.....	5

## GEORGIA

Cerebrospinal meningitis.....	1
Chicken pox.....	32
Conjunctivitis (infectious).....	1
Dengue.....	2
Diphtheria.....	92
Influenza.....	90
Malaria.....	13
Measles.....	31
Mumps.....	6
Paratyphoid fever.....	1
Pellagra.....	2
Pneumonia.....	46
Scarlet fever.....	37
Septic sore throat.....	9

## GEORGIA—continued

	Cases
Smallpox.....	63
Tuberculosis.....	19
Typhoid fever.....	13
Typhus fever.....	3
Whooping cough.....	47

## IDAHO

Chicken pox.....	15
Diphtheria.....	2
Measles.....	33
Mumps.....	3
Scarlet fever.....	28
Smallpox.....	5
Tuberculosis.....	5
Whooping cough.....	2

## ILLINOIS

Cerebrospinal meningitis:	
Champaign County.....	1
Cook County.....	2
Chicken pox.....	602
Diphtheria.....	112
Influenza.....	24
Lethargic encephalitis:	
Cook County.....	1
Vermilion County.....	1
Measles.....	742
Mumps.....	113
Pneumonia.....	256
Poliomyelitis—Cook County.....	2
Scarlet fever.....	285
Smallpox.....	9
Tuberculosis.....	163
Typhoid fever.....	22
Whooping cough.....	211

## INDIANA

Chicken pox.....	163
Diphtheria.....	99
Influenza.....	37
Measles.....	56
Pneumonia.....	9
Scarlet fever.....	176
Smallpox.....	147
Trachoma.....	5
Tuberculosis.....	18
Typhoid fever.....	10
Whooping cough.....	47

## IOWA

Chicken pox.....	86
Diphtheria.....	42
Measles.....	17
Mumps.....	18
Scarlet fever.....	45
Smallpox.....	8
Tuberculosis.....	3
Typhoid fever.....	2
Whooping cough.....	14

## KANSAS

Cerebrospinal meningitis—Hutchinson.....	1
Chicken pox.....	154
Diphtheria.....	41
Influenza.....	14

## KANSAS—continued

	Cases
Measles.....	58
Mumps.....	12
Pneumonia.....	44
Scarlet fever.....	92
Septic sore throat.....	8
Smallpox:	
Topeka.....	12
Scattering.....	6
Tuberculosis.....	30
Typhoid fever.....	3
Whooping cough.....	72

## LOUISIANA

Diphtheria.....	34
Influenza.....	13
Malaria.....	11
Measles.....	31
Pneumonia.....	20
Scarlet fever.....	24
Smallpox.....	5
Tuberculosis.....	62
Typhoid fever.....	10

## MAINE

Chicken pox.....	118
Diphtheria.....	2
Influenza.....	1
Measles.....	71
Mumps.....	9
Pneumonia.....	12
Scarlet fever.....	40
Tuberculosis.....	7
Typhoid fever.....	5
Vincent's angina.....	7
Whooping cough.....	78

MARYLAND<sup>1</sup>

Cerebrospinal meningitis.....	1
Chicken pox.....	143
Diphtheria.....	58
Dysentery.....	1
Influenza.....	27
Lethargic encephalitis.....	2
Measles.....	32
Mumps.....	14
Pneumonia (broncho).....	34
Pneumonia (lobar).....	43
Pneumonia (undefined).....	1
Scarlet fever.....	53
Tuberculosis.....	20
Typhoid fever.....	16
Whooping cough.....	75

## MASSACHUSETTS

Cerebrospinal meningitis.....	1
Chicken pox.....	416
Conjunctivitis (suppurative).....	2
Diphtheria.....	104
German measles.....	8
Influenza.....	9
Lethargic encephalitis.....	1
Measles.....	56
Mumps.....	166
Ophthalmia neonatorum.....	29
Pneumonia (lobar).....	95

<sup>1</sup> Week ended Friday.

## MASSACHUSETTS—continued

	Cases
Poliomyelitis.....	2
Scarlet fever.....	324
Septic sore throat.....	6
Trachoma.....	2
Tuberculosis (pulmonary).....	84
Tuberculosis (other forms).....	14
Typhoid fever.....	6
Whooping cough.....	148

## MICHIGAN

Diphtheria.....	160
Measles.....	104
Pneumonia.....	93
Scarlet fever.....	308
Smallpox.....	14
Tuberculosis.....	215
Typhoid fever.....	3
Whooping cough.....	149

## MINNESOTA

Chicken pox.....	293
Diphtheria.....	45
Influenza.....	1
Lethargic encephalitis.....	1
Measles.....	113
Pneumonia.....	3
Poliomyelitis.....	1
Scarlet fever.....	251
Smallpox.....	5
Tuberculosis.....	42
Typhoid fever.....	3
Whooping cough.....	14

## MISSISSIPPI

Cerebrospinal meningitis.....	1
Diphtheria.....	25
Influenza.....	106
Poliomyelitis.....	1
Scarlet fever.....	30
Smallpox.....	9
Typhoid fever.....	18

## MISSOURI

(Exclusive of Kansas City)

Cerebrospinal meningitis.....	2
Chicken pox.....	93
Diphtheria.....	71
Epidemic sore throat.....	10
Influenza.....	20
Measles.....	138
Mumps.....	6
Pneumonia.....	6
Scarlet fever.....	84
Smallpox.....	1
Tuberculosis.....	36
Typhoid fever.....	10
Whooping cough.....	39

## MONTANA

Cerebrospinal meningitis.....	2
Chicken pox.....	32
Diphtheria.....	2
German measles.....	2
Measles.....	140
Mumps.....	4



MONTANA—continued		NORTH CAROLINA	
	Cases		Cases
Scarlet fever.....	59	Chicken pox.....	147
Typhoid fever.....	1	Diphtheria.....	102
Whooping cough.....	1	German measles.....	2
		Measles.....	16
NEBRASKA		Scarlet fever.....	59
Cerebrospinal meningitis.....	1	Septic sore throat.....	2
Chicken pox.....	33	Smallpox.....	37
Diphtheria.....	7	Typhoid fever.....	9
German measles.....	4	Whooping cough.....	301
Measles.....	10		
Mumps.....	51	OKLAHOMA	
Pneumonia.....	1	(Exclusive of Oklahoma City and Tulsa)	
Scarlet fever.....	31	Chicken pox.....	18
Septic sore throat.....	3	Diphtheria.....	33
Smallpox.....	10	Influenza.....	100
Tetanus.....	1	Malaria.....	9
Tuberculosis.....	1	Measles.....	23
Typhoid fever.....	5	Mumps.....	16
Whooping cough.....	10	Pneumonia.....	87
		Poliomyelitis—Tulsa County.....	1
NEW JERSEY		Scarlet fever.....	30
Anthrax.....	1	Smallpox:	
Chicken pox.....	299	McCurtain County <sup>2</sup> .....	20
Diphtheria.....	123	Scattering.....	11
Dysentery.....	1	Typhoid fever.....	26
Influenza.....	18	Whooping cough.....	12
Measles.....	32		
Pneumonia.....	135	OREGON	
Poliomyelitis.....	2	Chicken pox.....	24
Scarlet fever.....	143	Diphtheria.....	20
Typhoid fever.....	18	Influenza.....	15
Whooping cough.....	170	Measles.....	31
		Mumps.....	8
NEW MEXICO		Pneumonia.....	10
Chicken pox.....	9	Poliomyelitis.....	1
Diphtheria.....	4	Scarlet fever.....	86
Measles.....	9	Smallpox:	
Mumps.....	2	Josephine County.....	11
Pneumonia.....	5	Klamath County.....	20
Poliomyelitis.....	1	Scattering.....	10
Scarlet fever.....	29	Tuberculosis.....	7
Septic sore throat.....	1	Typhoid fever.....	5
Tuberculosis.....	33	Whooping cough.....	5
Typhoid fever.....	6		
		PENNSYLVANIA	
NEW YORK		Anthrax—Philadelphia.....	1
(Exclusive of New York City)		Cerebrospinal meningitis—Duquesne.....	1
Cerebrospinal meningitis.....	1	Chicken pox.....	933
Chicken pox.....	526	Diphtheria.....	235
Diphtheria.....	101	German measles.....	13
Dysentery.....	1	Impetigo contagiosa.....	28
German measles.....	98	Lethargic encephalitis—Philadelphia.....	2
Influenza.....	12	Measles.....	580
Measles.....	817	Mumps.....	118
Mumps.....	101	Ophthalmia neonatorum—Philadelphia.....	4
Paratyphoid fever.....	2	Pneumonia.....	77
Pneumonia.....	231	Poliomyelitis—Kingston Township <sup>4</sup> .....	1
Poliomyelitis.....	4	Puerperal fever—Philadelphia.....	1
Scarlet fever.....	186	Scabies.....	15
Septic sore throat.....	2	Scarlet fever.....	417
Smallpox.....	16	Tuberculosis.....	102
Tetanus.....	2	Typhoid fever.....	59
Typhoid fever.....	36	Whooping cough.....	311
Vincent's angina.....	14		
Whooping cough.....	297		

<sup>2</sup> Delayed report.<sup>3</sup> Deaths.<sup>4</sup> County not specified.

RHODE ISLAND		TEXAS—continued	
	Cases		Cases
Chicken pox.....	16	Pellagra.....	2
Diphtheria.....	12	Pneumonia.....	14
Measles.....	1	Poliomyelitis.....	1
Mumps.....	3	Scarlet fever.....	60
Poliomyelitis.....	1	Smallpox.....	12
Scarlet fever.....	9	Trachoma.....	2
Tuberculosis.....	5	Tuberculosis.....	13
Whooping cough.....	5	Typhoid fever.....	19
		Whooping cough.....	11
SOUTH CAROLINA		UTAH	
Chicken pox.....	53	Chicken pox.....	54
Diphtheria.....	30	Diphtheria.....	12
Hookworm disease.....	25	German measles.....	10
Influenza.....	409	Measles.....	464
Malaria.....	126	Mumps.....	28
Measles.....	9	Pneumonia.....	10
Pellagra.....	18	Scarlet fever.....	15
Poliomyelitis.....	1	Smallpox.....	1
Scarlet fever.....	14	Whooping cough.....	1
Smallpox.....	1		
Tuberculosis.....	26	VERMONT	
Typhoid fever.....	16	Chicken pox.....	28
Whooping cough.....	32	Diphtheria.....	2
		Measles.....	93
SOUTH DAKOTA		Mumps.....	23
Chicken pox.....	25	Scarlet fever.....	3
Diphtheria.....	3	Whooping cough.....	45
Influenza.....	2		
Measles.....	36	WASHINGTON	
Pneumonia.....	9	Cerebrospinal meningitis.....	2
Scarlet fever.....	80	Chicken pox.....	151
Tuberculosis.....	1	Diphtheria.....	55
Typhoid fever.....	4	German measles.....	14
Whooping cough.....	19	Influenza.....	1
		Measles.....	110
TENNESSEE		Mumps.....	74
Cerebrospinal meningitis:		Pneumonia.....	1
Cocke County.....	1	Scabies.....	1
Memphis.....	1	Scarlet fever.....	107
Sevier County.....	1	Smallpox.....	66
Chicken pox.....	74	Tuberculosis.....	15
Diphtheria.....	39	Typhoid fever.....	6
Dysentery.....	2	Whooping cough.....	14
Influenza.....	53		
Malaria.....	3	WEST VIRGINIA	
Measles.....	13	Chicken pox.....	84
Mumps.....	1	Diphtheria.....	49
Ophthalmia neonatorum.....	2	German measles.....	10
Pellagra.....	2	Influenza.....	51
Pneumonia.....	62	Measles.....	65
Poliomyelitis—Blount County.....	1	Scarlet fever.....	65
Rabies.....	2	Smallpox.....	11
Scarlet fever.....	55	Tuberculosis.....	16
Smallpox.....	7	Typhoid fever.....	32
Tuberculosis.....	34	Whooping cough.....	124
Typhoid fever.....	37		
Whooping cough.....	67	WISCONSIN	
		Milwaukee:	
TEXAS		Chicken pox.....	88
Cerebrospinal meningitis.....	1	Diphtheria.....	22
Chicken pox.....	10	German measles.....	3
Diphtheria.....	82	Influenza.....	1
Influenza.....	160	Measles.....	10
Lethargic encephalitis.....	1	Mumps.....	51
Measles.....	4	Pneumonia.....	16
Mumps.....	5	Scarlet fever.....	18
		Tuberculosis.....	7
		Whooping cough.....	50

WISCONSIN—continued		WYOMING	
Scattering:	Cases		Cases
Cerebrospinal meningitis.....	2	Cerebrospinal meningitis:	
Chicken pox.....	255	Hot Springs County.....	1
Diphtheria.....	25	Johnson County.....	1
German measles.....	9	Sheridan County.....	1
Influenza.....	50	Chicken pox.....	39
Measles.....	513	Measles.....	27
Mumps.....	79	Mumps.....	6
Pneumonia.....	14	Pneumonia.....	3
Scarlet fever.....	123	Scarlet fever.....	21
Smallpox.....	2	Tularaemia—Sheridan County.....	1
Tuberculosis.....	16	Typhoid fever.....	1
Typhoid fever.....	2	Whooping cough.....	5
Whooping cough.....	123		

### Reports for Week Ended December 4, 1926

DISTRICT OF COLUMBIA		SOUTH CAROLINA—continued	
	Cases		Cases
Chicken pox.....	31	Malaria.....	175
Diphtheria.....	23	Measles.....	13
Pneumonia.....	27	Pellagra.....	23
Scarlet fever.....	10	Scarlet fever.....	25
Tuberculosis.....	26	Smallpox.....	6
		Tuberculosis.....	22
		Typhoid fever.....	29
		Whooping cough.....	48
NORTH DAKOTA		SOUTH DAKOTA	
Chicken pox.....	50	Chicken pox.....	35
Diphtheria.....	12	Diphtheria.....	9
German measles.....	2	Measles.....	72
Measles.....	182	Mumps.....	1
Mumps.....	15	Pneumonia.....	5
Pneumonia.....	4	Poliomyelitis.....	1
Scarlet fever.....	66	Scarlet fever.....	100
Smallpox.....	17	Smallpox.....	20
Trachoma.....	69	Tetanus.....	1
Tuberculosis.....	3	Tuberculosis.....	2
		Typhoid fever.....	1
		Whooping cough.....	6
SOUTH CAROLINA			
Chicken pox.....	39		
Diphtheria.....	71		
Hookworm disease.....	21		
Influenza.....	513		

### SUMMARY OF MONTHLY REPORTS FROM STATES

The following summary of monthly State reports is published weekly and covers only those States from which reports are received during the current week:

State	Cerebrospinal meningitis	Diphtheria	Influenza	Malaria	Measles	Pellagra	Poliomyelitis	Scarlet fever	Smallpox	Typhoid fever
<i>September, 1926</i>										
Hawaii Territory.....	0	27	4		26		0	0	0	25
<i>October, 1926</i>										
Alabama.....	1	366	176	646	42	26	4	130	8	360
California.....	12	526	80	10	1,952	2	13	709	63	72
Colorado.....	0	84	0	1	22	0	2	161	3	29
District of Columbia.....	0	107	4		3	1	1	48	0	9
Hawaii Territory.....	2	35	1		102		0		0	7
<i>November, 1926</i>										
Connecticut.....	2	113	16	1	58		1	230	0	11
District of Columbia.....	1	149	1		9	1	1	45	0	9

October, 1926		October, 1926—Continued	
Angina:	Cases	Septic sore throat:	Cases
Colorado.....	4	Colorado.....	1
Chicken pox:		Tetanus:	
Alabama.....	7	California.....	4
California.....	567	Trachoma:	
Colorado.....	59	California.....	10
District of Columbia.....	10	Hawaii Territory.....	73
Hawaii Territory.....	1	Typhus fever:	
Conjunctivitis (follicular):		Alabama.....	7
Hawaii.....	147	California.....	1
Dysentery:		Whooping cough:	
California (amebic).....	6	Alabama.....	120
California (bacillary).....	4	California.....	225
German measles:		Colorado.....	23
California.....	41	District of Columbia.....	33
Hookworm disease:		November, 1926	
California.....	4	Anthrax:	
Colorado.....	1	Connecticut.....	1
Jaundice (epidemic):		Chicken pox:	
California.....	9	Connecticut.....	426
Impetigo contagiosa:		District of Columbia.....	88
Colorado.....	1	Conjunctivitis (infectious):	
Leprosy:		Connecticut.....	1
California.....	3	Dysentery (bacillary):	
Hawaii Territory.....	4	Connecticut.....	1
Lethargic encephalitis:		German measles:	
Alabama.....	1	Connecticut.....	7
California.....	8	Lethargic encephalitis:	
District of Columbia.....	1	Connecticut.....	3
Mumps:		Mumps:	
Alabama.....	20	Connecticut.....	26
California.....	467	Rabies (in animals):	
Colorado.....	6	Connecticut.....	3
Paratyphoid fever:		Septic sore throat:	
California.....	3	Connecticut.....	5
Plague:		Whooping cough:	
Hawaii Territory.....	1	Connecticut.....	175
Rabies (in animals):		District of Columbia.....	18
California.....	40		

#### GENERAL CURRENT SUMMARY AND WEEKLY REPORTS FROM CITIES

*Diphtheria.*—For the week ended November 27, 1926, 41 States reported 2,389 cases of diphtheria. For the week ended November 28, 1925, the same States reported 1,893 cases of this disease. Ninety-nine cities, situated in all parts of the country and having an aggregate population of more than 30,100,000, reported 1,236 cases of diphtheria for the week ended November 27, 1926. Last year for the corresponding week they reported 880 cases. The estimated expectancy for these cities was 1,391 cases. The estimated expectancy is based on the experience of the last nine years, excluding epidemics.

*Measles.*—Thirty-nine States reported 4,348 cases of measles for the week ended November 27, 1926, and 3,215 cases of this disease for the week ended November 28, 1925. Ninety-nine cities reported 773 cases of measles for the week this year, and 1,165 cases last year.

*Poliomyelitis.*—The health officers of 42 States reported 33 cases



of poliomyelitis for the week ended November 27, 1926. The same States reported 40 cases for the week ended November 28, 1925.

*Scarlet fever.*—Scarlet fever was reported for the week as follows: Forty-one States—this year, 3,499 cases; last year, 3,167 cases; 99 cities—this year, 1,245 cases; last year, 1,125 cases; estimated expectancy, 975 cases.

*Smallpox.*—For the week ended November 27, 1926, 40 States reported 413 cases of smallpox. Last year for the corresponding week they reported 464 cases. Ninety-nine cities reported smallpox for the week as follows: 1926, 32 cases; 1925, 89 cases; estimated expectancy, 48 cases. One death from smallpox was reported by these cities for the week this year—at Indianapolis, Ind.

*Typhoid fever.*—Four hundred and seventy-seven cases of typhoid fever were reported for the week ended November 27, 1926, by 41 States. For the corresponding week of 1925 the same States reported 566 cases of this disease. Ninety-nine cities reported 70 cases of typhoid fever for the week this year and 76 cases for the corresponding week last year. The estimated expectancy for these cities was 87 cases.

*Influenza and pneumonia.*—Deaths from influenza and pneumonia were reported for the week by 93 cities, with a population of about 29,500,000, as follows: 1926, 773 deaths; 1925, 744 deaths.

*City reports for week ended November 27, 1926*

The "estimated expectancy" given for diphtheria, poliomyelitis, scarlet fever, smallpox, and typhoid fever is the result of an attempt to ascertain from previous occurrence how many cases of the disease under consideration may be expected to occur during a certain week in the absence of epidemics. It is based on reports to the Public Health Service during the past nine years. It is in most instances the median number of cases reported in the corresponding week of the preceding years. When the reports include several epidemics or when for other reasons the median is unsatisfactory, the epidemic periods are excluded and the estimated expectancy is the mean number of cases reported for the week during nonepidemic years.

If reports have not been received for the full nine years, data are used for as many years as possible, but no year earlier than 1917 is included. In obtaining the estimated expectancy the figures are smoothed when necessary to avoid abrupt deviations from the usual trend. For some of the diseases given in the table the available data were not sufficient to make it practicable to compute the estimated expectancy.

Division, State, and city	Population July 1, 1925, estimated	Chicken pox, cases reported	Diphtheria		Influenza		Measles, cases reported	Mumps, cases reported	Pneumonia, deaths reported
			Cases, estimated expectancy	Cases reported	Cases reported	Deaths reported			
NEW ENGLAND									
Maine:									
Portland	75,333	21	2	1	0	0	0	0	4
New Hampshire:									
Concord	22,546	0	0	0	0	0	2	0	0
Manchester	83,067	0	5	0	0	0	2	0	0
Vermont:									
Barre	10,008	0	1	0	0	0	11	0	0
Massachusetts:									
Boston	779,620	70	64	30	1	1	8	26	26
Fall River	128,993	6	5	4	3	1	1	5	0
Springfield	142,065	1	5	3	0	0	1	8	2
Worcester	190,737	14	6	1	1	0	1	0	2

## City reports for week ended November 27, 1926—Continued

Division, State, and city	Population July 1, 1925, estimated	Chick- en pox, cases re- ported	Diphtheria		Influenza		Meas- les, cases re- ported	Mumps, cases re- ported	Pneu- monia, deaths re- ported
			Cases, esti- mated expect- ancy	Cases re- ported	Cases re- ported	Deaths re- ported			
NEW ENGLAND—CON.									
Rhode Island:									
Pawtucket.....	69,760	2	2	0	0	0	0	0	
Providence.....	267,915	0	10	10	0	1	0	0	
Connecticut:									
Bridgeport.....	(1)	0	11	4	0	1	0	0	4
Hartford.....	160,197		10						
New Haven.....	178,927	14	5	3	0	0	0	1	8
MIDDLE ATLANTIC									
New York:									
Buffalo.....	538,016	14	26	12	1	2	2	3	20
New York.....	5,873,356	157	267	190	52	11	16	112	144
Rochester.....	316,786	13	10	2		0	2	1	6
Syracuse.....	182,003	4	12	3		0	6	9	4
New Jersey:									
Camden.....	128,642	4	6	24	0	0	0	0	5
Newark.....	452,513	16	19	12	2	0	0	8	10
Trenton.....	132,020	3	7	4	0	0	0	0	3
Pennsylvania:									
Philadelphia.....	1,979,364	153	84	41		1	6	9	63
Pittsburgh.....	631,563	81	37	22		0	28	0	18
Reading.....	112,707	15	5	0		0	0	0	4
Scranton.....	142,266	3	5	0		0	0	2	2
EAST NORTH CENTRAL									
Ohio:									
Cincinnati.....	409,333	11	23	15	0	2	0	15	9
Cleveland.....	930,485	90	49	104	1	1	1	3	15
Columbus.....	279,836	20	8	29	0	2	1	0	4
Toledo.....	287,380	82	19	8	0	1	5	0	5
Indiana:									
Fort Wayne.....	97,846	7	4	8	0	0	0	0	3
Indianapolis.....	358,819	58	13	28	0	0	0	0	10
South Bend.....	80,091	3	3	2	0	0	12	0	1
Terre Haute.....	71,071	6	3	4	0	0	1	0	6
Illinois:									
Chicago.....	2,995,220	123	161	55	9	6	152	29	47
Peoria.....	81,564	14	1	0	0	1	113	3	4
Springfield.....	63,923	19	3	0	1	1	13	0	2
Michigan:									
Detroit.....	1,245,824	140	73	104	0	1	2	30	35
Flint.....	130,316	25	14	4	0	0	1	0	2
Grand Rapids.....	163,698	9	6	0	0	0	0	0	0
Wisconsin:									
Kenosha.....	50,891	20	3	0	0	0	6	2	0
Madison.....	46,385	37	1	0	0	0	0	0	0
Milwaukee.....	569,192	80	33	21	0	0	8	47	10
Racine.....	67,707		3						
Superior.....	39,671	7	1	3	0	0	0	0	0
WEST NORTH CENTRAL									
Minnesota:									
Duluth.....	110,502	4	4	0	0	0	40	1	5
Minneapolis.....	425,435	186	29	44	0	1	1	0	3
St. Paul.....	246,001	33	22	7	0	0	8	0	7
Iowa:									
Davenport.....	52,460	1	3	0	0		5	2	
Sioux City.....	76,411	15	3	9	0		1	0	
Waterloo.....	36,771	64	1	0	0		0	1	
Missouri:									
Kansas City.....	367,481	91	15	3	0	0	1	0	10
St. Joseph.....	78,342	4	5	0	0	0	1	0	0
St. Louis.....	821,543	27	60	28	0	0	0	3	
North Dakota:									
Fargo.....	26,403	11	0	0	0	0	0	0	1
South Dakota:									
Aberdeen.....	15,036	6	0	0	0		0	0	
Sioux Falls.....	30,127	5	1	0	0		0	0	

1 No estimate made.

## City reports for week ended November 27, 1926—Continued

Division, State, and city	Population July 1, 1925, estimated	Chick- en pox, cases re- ported	Diphtheria		Influenza		Meas- les, cases re- ported	Mumps, cases re- ported	Pneu- monia, deaths re- ported
			Cases, esti- mated expectancy	Cases re- ported	Cases re- ported	Deaths re- ported			
WEST NORTH CENTRAL— continued									
Nebraska:									
Lincoln.....	60,941	13	2	0	1	0	0	0	0
Omaha.....	211,768	3	8	3	0	0	2	4	6
Kansas:									
Topeka.....	55,411	14	4	1	0	0	0	0	1
Wichita.....	88,367	10	8	0	0	0	0	0	2
SOUTH ATLANTIC									
Delaware:									
Wilmington.....	122,049	1	4	0	0	0	0	0	5
Maryland:									
Baltimore.....	796,296	85	35	31	9	4	0	6	27
Cumberland.....	33,741	5	2	0	0	0	0	0	3
Frederick.....	12,035	1	0	0	0	0	0	0	1
District of Columbia:									
Washington.....	497,906	21	28	19	0	0	2	0	9
Virginia:									
Lynchburg.....	30,395	6	2	3	0	0	0	0	2
Norfolk.....	( <sup>1</sup> )	1	6	4	0	0	0	0	2
Richmond.....	186,403	5	16	22	0	1	4	0	5
Roanoke.....	58,208	2	5	9	0	0	0	0	1
West Virginia:									
Charleston.....	49,019	0	4	3	0	1	0	0	1
Huntington.....	63,485	0	3	3	0	0	0	0	0
Wheeling.....	56,208	17	4	4	0	0	0	0	3
North Carolina:									
Raleigh.....	30,371	0	2	4	0	0	1	0	0
Wilmington.....	37,061	15	0	4	0	0	0	0	5
Winston-Salem.....	69,031	0	2	10	0	0	0	0	2
South Carolina:									
Charleston.....	73,125	0	3	2	3	0	0	0	6
Columbia.....	41,225	1	1	2	0	0	0	0	0
Greenville.....	27,311	2	1	2	0	0	0	0	1
Georgia:									
Atlanta.....	( <sup>1</sup> )	1	7	27	0	0	2	2	9
Brunswick.....	16,809	1	0	0	0	0	0	1	0
Savannah.....	93,134	2	4	0	7	2	0	1	5
Florida:									
Miami.....	60,754	0	0	5	0	0	1	0	2
St. Petersburg.....	26,847	0	0	0	0	0	0	0	0
Tampa.....	94,743	2	1	5	0	0	3	0	2
EAST SOUTH CENTRAL									
Kentucky:									
Covington.....	58,309	1	3	3	0	0	0	0	3
Louisville.....	305,935	6	14	7	0	0	0	0	4
Tennessee:									
Memphis.....	174,533	13	13	5	0	0	0	0	1
Nashville.....	136,220	0	5	12	0	2	0	0	6
Alabama:									
Birmingham.....	205,670	10	7	5	12	6	3	3	6
Mobile.....	65,955	0	2	1	0	0	0	0	0
Montgomery.....	46,481	3	1	9	2	0	0	0	0
WEST SOUTH CENTRAL									
Arkansas:									
Fort Smith.....	31,643	0	2	1	0	0	0	0	0
Little Rock.....	74,216	0	4	0	1	0	2	0	2
Louisiana:									
New Orleans.....	414,493	0	12	15	9	6	20	0	17
Shreveport.....	57,857	5	1	4	0	0	0	0	4
Oklahoma:									
Oklahoma City.....	( <sup>1</sup> )	0	4	2	6	0	0	0	1
Texas:									
Dallas.....	194,450	9	13	33	0	0	2	2	2
Galveston.....	48,375	0	1	0	0	0	0	0	1
Houston.....	164,954	1	5	10	0	0	0	0	8
San Antonio.....	198,069	1	4	7	0	1	0	0	13

<sup>1</sup> No estimate made.

## City reports for week ended November 27, 1926—Continued

Division, State, and city	Population July 1, 1925, estimated	Chicken pox, cases reported	Diphtheria		Influenza		Measles, cases reported	Mumps, cases reported	Pneumonia, deaths reported
			Cases, estimated expectancy	Cases reported	Cases reported	Deaths reported			
MOUNTAIN									
Montana:									
Billings.....	17,971	4	1	0	0	1	64	0	0
Great Falls.....	29,883	3	1	0	0	1	0	0	1
Helena.....	12,087	0	0	0	0	0	0	0	0
Missoula.....	12,668	3	0	0	0	0	0	0	2
Idaho:									
Boise.....	23,042	4	0	0	0	0	3	10	0
Colorado:									
Denver.....	280,911	5	14	15	-----	2	14	0	7
Pueblo.....	43,787	5	5	1	0	0	0	0	1
New Mexico:									
Albuquerque.....	21,000	2	1	0	0	0	0	1	1
Arizona:									
Phoenix.....	38,669	0	1	0	0	1	0	0	1
Utah:									
Salt Lake City.....	130,948	17	4	6	0	0	198	4	5
Nevada:									
Reno.....	12,665	0	0	0	0	0	0	0	0
PACIFIC									
Washington:									
Seattle.....	(1)	36	7	8	0	-----	6	17	-----
Spokane.....	108,897	26	4	1	0	-----	47	0	-----
Tacoma.....	104,455	24	3	12	0	0	1	0	0
Oregon:									
Portland.....	282,383	10	9	9	0	0	3	4	1
California:									
Los Angeles.....	(1)	29	40	78	6	0	9	14	23
Sacramento.....	72,260	1	3	2	0	0	18	10	2
San Francisco.....	557,530	24	17	12	0	0	45	23	10

Division, State, and city	Scarlet fever		Smallpox			Tuber- culosis, deaths re- ported	Typhoid fever			Whoop- ing cough, cases re- ported	Deaths, all causes
	Cases, esti- mated expect- ancy	Cases re- ported	Cases, esti- mated expect- ancy	Cases re- ported	Deaths re- ported		Cases, esti- mated expect- ancy	Cases re- ported	Deaths re- ported		
NEW ENGLAND											
Maine:											
Portland.....	2	1	0	0	0	0	0	2	0	5	24
New Hampshire:											
Concord.....	1	2	0	0	0	1	0	0	0	0	5
Manchester...	3	0	0	0	0	0	0	0	0	0	7
Vermont:											
Barre.....	1	0	0	0	0	1	0	0	0	0	3
Massachusetts:											
Boston.....	38	60	0	0	0	20	1	0	0	38	228
Fall River.....	1	1	0	0	0	1	1	0	0	0	28
Springfield.....	7	6	0	0	0	0	0	1	0	5	38
Worcester.....	11	8	0	0	0	3	1	0	0	0	45
Rhode Island:											
Pawtucket.....	1	0	0	0	0	0	0	0	0	0	10
Providence.....	6	12	0	0	0	3	1	0	0	2	62
Connecticut:											
Bridgeport.....	7	23	0	0	0	2	0	0	0	0	24
Hartford.....	6	-----	0	-----	-----	0	-----	-----	-----	-----	-----
New Haven.....	5	4	0	0	0	4	1	0	0	1	42
MIDDLE ATLANTIC											
New York:											
Buffalo.....	18	12	0	0	0	10	2	5	1	4	147
New York.....	118	162	0	0	0	102	20	9	1	55	1,250
Rochester.....	9	5	0	0	0	2	1	2	0	11	58
Syracuse.....	13	3	0	0	0	3	0	0	0	10	40

1 No estimate made.

2 Pulmonary tuberculosis only.



## City reports for week ended November 27, 1926—Continued

Division, State, and city	Scarlet fever		Smallpox			Tuber- culosis, deaths re-ported	Typhoid fever			Whoop- ing cough, cases re-ported	Deaths, all causes
	Cases, esti- mated expect- ancy	Cases re- ported	Cases, esti- mated expect- ancy	Cases re- ported	Deaths re- ported		Cases, esti- mated expect- ancy	Cases re- ported	Deaths re- ported		
MIDDLE ATLANTIC— continued											
New Jersey:											
Camden.....	2	3	0	0	0	1	0	2	1	2	27
Newark.....	15	11	0	0	0	10	2	0	0	34	91
Trenton.....	2	1	0	0	0	4	0	0	0	1	34
Pennsylvania:											
Philadelphia....	67	50	0	0	0	28	5	9	2	23	443
Pittsburgh.....	35	28	0	0	0	7	1	0	2	18	135
Reading.....	2	1	0	0	0	0	0	0	0	2	28
Seranton.....	2	5	0	0	0	3	0	1	0	1	24
EAST NORTH CENTRAL											
Ohio:											
Cincinnati.....	14	12	1	0	0	9	1	3	0	3	143
Cleveland.....	29	20	0	0	0	18	2	0	0	18	183
Columbus.....	11	22	1	1	0	1	1	0	0	1	73
Toledo.....	13	9	1	0	0	6	1	0	0	23	66
Indiana:											
Fort Wayne.....	2	4	0	0	0	1	0	0	0	0	23
Indianapolis....	12	23	3	8	1	4	0	0	0	21	88
South Bend....	3	0	0	0	0	0	0	0	0	0	9
Terre Haute....	4	9	0	0	0	0	0	0	0	0	37
Illinois:											
Chicago.....	113	73	1	0	0	39	5	2	1	41	634
Peoria.....	6	2	0	0	0	0	0	0	0	3	18
Springfield....	2	2	0	0	0	1	1	0	0	1	19
Michigan:											
Detroit.....	74	76	2	0	0	19	3	0	0	50	280
Flint.....	9	7	0	1	0	0	0	0	0	4	22
Grand Rapids..	8	20	0	1	0	1	1	0	0	4	27
Wisconsin:											
Kenosha.....	2	1	1	0	0	0	0	0	1	7	8
Madison.....	0	9	0	0	0	0	0	1	0	4	8
Milwaukee.....	27	12	2	0	0	6	1	0	0	53	89
Racine.....	4		0				0				
Superior.....	2	4	0	0		0	0	0	0	0	14
WEST NORTH CENTRAL											
Minnesota:											
Duluth.....	5	7	1	0	0	2	0	0	0	0	22
Minneapolis....	40	73	2	0	0	3	0	0	0	0	95
St. Paul.....	16	15	8	0	0	3	1	0	0	8	57
Iowa:											
Davenport.....	1	4	1	0			0	0		0	
Sioux City.....	3	8	1	2			0	0		2	
Waterloo.....	3	1	0	0			0	0		6	
Missouri:											
Kansas City....	11	12	0	2	0	5	1	0	0	9	84
St. Joseph.....	3	3	0	0	0	0	0	0	0	0	13
St. Louis.....	35	58	0	1	0	9	3	3	0	13	253
North Dakota:											
Fargo.....	2	3	0	0	0	0	1	0	0	3	4
South Dakota:											
Aberdeen.....	1	10	0	0			0	0		0	
Sioux Falls....	2	0	0	0			0	0		0	
Nebraska:											
Lincoln.....	2	3	0	0	0	0	0	0	0	1	18
Omaha.....	5	9	3	1	0	1	0	0	0	0	57
Kansas:											
Topeka.....	2	0	0	9	0	1	1	0	0	3	22
Wichita.....	3	15	0	0	0	0	0	1	0	7	29
SOUTH ATLANTIC											
Delaware:											
Wilmington....	4	9	0	0	0	2	0	0	0	0	27
Maryland:											
Baltimore.....	20	17	0	0	0	13	4	2	1	37	214
Cumberland....	0	0	0	0	0	0	0	0	0	0	7
Frederick.....	0	0	0	0	0	0	0	0	0	0	

## City reports for week ended November 27, 1926—Continued

Division, State, and city	Scarlet fever		Smallpox			Typhoid fever				Whooping cough, cases reported	Deaths, all causes
	Cases, estimated expectancy	Cases reported	Cases, estimated expectancy	Cases reported	Deaths reported	Tuberculosis, deaths reported	Cases, estimated expectancy	Cases reported	Deaths reported		
SOUTH ATLANTIC—continued											
District of Col.: Washington	19	12	0	0	0	4	3	2	0	5	126
Virginia:											
Lynchburg	0	2	0	0	0	0	0	0	0	0	12
Norfolk	2	12	0	0	0	3	0	1	0	1	49
Richmond	8	5	0	0	0	4	1	0	0	0	17
Roanoke	2	5	0	0	0	1	1	0	0	0	
West Virginia:											
Charleston	1	2	0	0	0	1	0	0	0	0	13
Huntington	2	3	0	0	0		1	0	0	0	
Wheeling	2	0	0	0	0	0	1	1	0	0	17
North Carolina:											
Raleigh	2	7	0	0	0	1	0	0	0	12	24
Wilmington	1	0	1	0	0	0	1	0	0	4	12
Winston-Salem	1	4	0	0	0	0	0	0	0	1	15
South Carolina:											
Charleston	1	0	0	0	0	2	1	1	0	0	26
Columbia	1	0	0	0	0	0	0	0	0	2	5
Greenville	1	0	0	0	0	0	0	0	0	0	4
Georgia:											
Atlanta	5	4	0	1	0	2	1	1	0	2	65
Brunswick	0	0	0	0	0	0	0	0	0	0	5
Savannah	1	1	0	1	0	2	1	0	0	0	32
Florida:											
Miami		0		0	0	4		1	0	1	34
St. Petersburg	1		0		0	0	0		0		11
Tampa	0	4	0	0	0	1	0	2	1	1	31
EAST SOUTH CENTRAL											
Kentucky:											
Covington	2	3	0	0	0	1	0	0	0	0	23
Louisville	4	11	1	1	0	8	2	1	1	8	79
Tennessee:											
Memphis	5	12	1	0	0	4	1	3	0	15	52
Nashville	3	15	1	0	0	6	1	1	0	3	63
Alabama:											
Birmingham	4	3	0	0	0	6	1	1	0	1	83
Mobile	0	2	0	0	0	1	0	0	1	0	14
Montgomery	1	0	0	0	0	0	0	0	0	0	17
WEST SOUTH CENTRAL											
Arkansas:											
Fort Smith	2	2	0	1			1	0		0	
Little Rock	2	1	1	0	0	3	1	0	1	2	
Louisiana:											
New Orleans	7	7	0	0	0	17	2	3	3	0	160
Shreveport	1	1	1	0	0	2	1	0	0	0	26
Oklahoma:											
Oklahoma City	3	2	0	1	0	0	0	0	0	0	26
Texas:											
Dallas	4	27	0	0	0	1	1	1	2	4	47
Galveston	1	5	0	0	0	1	0	0	0	0	14
Houston	1	1	0	0	0	2	0	0	0	0	43
San Antonio	1	2	0	0	0	11	0	0	2	0	64
MOUNTAIN											
Montana:											
Billings	1	0	0	0	0	0	0	0	0	0	10
Great Falls	1	4	1	0	0	0	0	0	0	0	13
Helena	0	0	0	0	0	0	0	0	0	0	4
Missoula	0	12	0	0	0	0	0	0	0	0	8
Idaho:											
Boise	1	0	0	0	0	0	0	0	0	0	4
Colorado:											
Denver	10	65	4	0	0	11	0	0	0	0	76
Pueblo	2	0	0	0	0	0	0	0	0	0	9

## City reports for week ended November 27, 1926—Continued

Division, State, and city	Scarlet fever		Smallpox			Tuber- culosis, deaths re- ported	Typhoid fever			Whoop- ing cough, cases re- ported	Deaths, all causes
	Cases, esti- mated expect- ancy	Cases re- ported	Cases, esti- mated expect- ancy	Cases re- ported	Deaths re- ported		Cases, esti- mated expect- ancy	Cases re- ported	Deaths re- ported		
MOUNTAIN—contd.											
New Mexico: Albuquerque.....	1	0	0	0	0	4	0	0	0	0	15
Arizona: Phoenix.....	3	2	0	0	0	7	0	0	0	0	23
Utah: Salt Lake City.....	3	5	1	0	0	0	0	2	0	0	-----
Nevada: Reno.....	1	0	0	0	0	0	0	0	0	0	6
PACIFIC											
Washington: Seattle.....	7	8	3	0	-----	-----	1	5	-----	0	-----
Spokane.....	7	25	3	1	-----	-----	0	1	-----	2	-----
Tacoma.....	2	5	2	0	0	0	0	0	0	1	-----
Oregon: Portland.....	7	19	4	0	0	4	1	0	1	0	69
California: Los Angeles.....	20	42	3	1	0	16	2	0	0	5	250
Sacramento.....	2	1	0	0	0	7	0	1	0	0	21
San Francisco.....	10	12	0	0	0	11	1	1	0	3	141

Division, State, and city	Cerebrospinal meningitis		Lethargic encephalitis		Pellagra		Poliomyelitis (infantile paralysis)			
	Cases	Deaths	Cases	Deaths	Cases	Deaths	Cases, estimated expectancy	Cases	Deaths	Deaths
<b>NEW ENGLAND</b>										
Massachusetts:										
Boston.....	0	0	0	0	0	0	1	1	0	
Fall River.....	0	0	0	0	0	0	0	1	1	
<b>MIDDLE ATLANTIC</b>										
New York:										
New York.....	3	1	2	0	0	0	3	2	0	
New Jersey:										
Newark.....	1	0	1	0	0	0	0	0	0	
Pennsylvania:										
Philadelphia.....	1	1	1	1	0	0	0	0	0	
<b>EAST NORTH CENTRAL</b>										
Illinois:										
Chicago.....	3	1	1	0	0	0	1	1	1	
Michigan:										
Detroit.....	0	0	0	0	0	0	0	1	0	
Wisconsin:										
Milwaukee.....	0	0	1	1	0	0	0	0	0	
<b>SOUTH ATLANTIC</b>										
Maryland:										
Baltimore.....	1	0	0	0	0	0	0	0	0	
West Virginia:										
Wheeling.....	0	1	0	0	0	0	0	0	0	
North Carolina:										
Winston-Salem.....	1	1	0	0	0	0	0	0	0	
Georgia:										
Atlanta.....	0	0	0	0	0	1	0	1	0	

## City reports for week ended November 27, 1926—Continued

Division, State, and city	Cerebrospinal meningitis		Lethargic encephalitis		Pellagra		Poliomyelitis (infantile paralysis)		
	Cases	Deaths	Cases	Deaths	Cases	Deaths	Cases, estimated expectancy	Cases	Deaths
<b>EAST SOUTH CENTRAL</b>									
Kentucky:									
Louisville.....	0	0	0	1	0	0	0	0	0
Tennessee:									
Memphis.....	0	1	0	0	0	0	0	0	0
Alabama:									
Birmingham.....	0	0	0	0	1	0	0	0	0
<b>WEST SOUTH CENTRAL</b>									
Texas:									
Dallas.....	0	0	0	0	0	0	0	1	1
Houston.....	0	0	0	0	0	1	0	0	0
<b>PACIFIC</b>									
California:									
Los Angeles.....	2	0	0	0	1	0	1	0	0
San Francisco.....	0	0	0	0	2	2	0	0	0

The following table gives the rates per 100,000 population for 101 cities for the five-week period ended November 27, 1926, compared with those for a like period ended November 28, 1925. The population figures used in computing the rates are approximate estimates as of July 1, 1925 and 1926, respectively, authoritative figures for many of the cities not being available. The 101 cities reporting cases had an estimated aggregate population of nearly 30,000,000 in 1925 and nearly 30,500,000 in 1926. The 95 cities reporting deaths had more than 29,200,000 estimated population in 1925 and more than 29,730,000 in 1926. The number of cities included in each group and the estimated aggregate populations are shown in a separate table below.

Summary of weekly reports from cities, October 24 to November 27, 1926—Annual rates per 100,000 population, compared with rates for the corresponding period of 1925<sup>1</sup>

## DIPHTHERIA CASE RATES

	Week ended—									
	Oct. 31, 1925	Oct. 30, 1926	Nov. 7, 1925	Nov. 6, 1926	Nov. 14, 1925	Nov. 13, 1926	Nov. 21, 1925	Nov. 20, 1926	Nov. 28, 1925	Nov. 27, 1926
101 cities.....	<sup>2</sup> 176	213	161	224	169	229	176	230	154	<sup>3</sup> 213
New England.....	132	106	93	118	122	135	139	139	101	<sup>4</sup> 143
Middle Atlantic.....	148	138	125	142	140	162	143	159	150	154
East North Central.....	186	241	178	276	185	264	180	292	155	<sup>5</sup> 259
West North Central.....	278	264	264	252	235	222	221	213	170	191
South Atlantic.....	213	357	198	319	236	391	271	278	207	284
East South Central.....	89	384	126	425	63	265	121	368	110	218
West South Central.....	251	331	189	254	203	379	167	327	172	301
Mountain.....	<sup>2</sup> 170	155	277	218	240	182	305	146	129	200
Pacific.....	149	205	141	288	138	232	177	326	157	305

<sup>1</sup> The figures given in this table are rates per 100,000 population, annual basis, and not the number of cases reported. Populations used are estimated as of July 1, 1925 and 1926, respectively.

<sup>2</sup> Helena, Mont., not included.

<sup>3</sup> Hartford, Conn., and Racine, Wis., not included.

<sup>4</sup> Hartford, Conn., not included.

<sup>5</sup> Racine, Wis., not included.



Summary of weekly reports from cities, October 24 to November 27, 1926—Annual rates per 100,000 population, compared with rates for the corresponding period of 1925—Continued

## MEASLES CASE RATES

	Week ended—									
	Oct. 31, 1925	Oct. 30, 1926	Nov. 7, 1925	Nov. 6, 1926	Nov. 14, 1925	Nov. 13, 1926	Nov. 21, 1925	Nov. 20, 1926	Nov. 28, 1925	Nov. 27, 1926
101 cities.....	<sup>1</sup> 102	64	149	81	109	105	222	135	205	<sup>2</sup> 133
New England.....	582	24	822	66	903	31	1,090	47	798	<sup>4</sup> 61
Middle Atlantic.....	110	13	159	16	170	44	255	28	238	30
East North Central.....	54	77	70	80	84	100	97	121	118	<sup>3</sup> 131
West North Central.....	12	85	14	151	10	147	14	197	29	109
South Atlantic.....	56	9	144	21	217	24	271	54	330	23
East South Central.....	16	21	16	26	16	10	47	31	32	16
West South Central.....	4	0	9	9	9	26	9	26	4	103
Mountain.....	<sup>1</sup> 19	391	37	792	46	1,529	28	1,948	9	2,540
Pacific.....	14	342	17	315	19	280	30	491	25	340

## SCARLET FEVER CASE RATES

101 cities.....	<sup>1</sup> 155	109	163	189	182	207	178	213	107	<sup>2</sup> 215
New England.....	104	246	261	265	237	352	291	331	206	<sup>4</sup> 299
Middle Atlantic.....	106	92	110	94	142	125	143	129	149	137
East North Central.....	185	157	159	189	180	185	187	202	210	<sup>3</sup> 201
West North Central.....	292	354	358	415	354	346	401	407	438	411
South Atlantic.....	180	133	173	199	161	178	115	145	134	158
East South Central.....	74	332	100	249	168	296	129	228	168	239
West South Central.....	40	112	97	112	114	142	88	116	132	188
Mountain.....	<sup>1</sup> 189	364	166	583	176	701	157	637	166	783
Pacific.....	141	237	155	205	196	280	188	337	237	251

## SMALLPOX CASE RATES

101 cities.....	<sup>1</sup> 10	3	9	3	8	5	16	5	16	<sup>2</sup> 6
New England.....	0	0	0	0	0	0	0	0	0	<sup>4</sup> 0
Middle Atlantic.....	0	0	0	0	0	0	0	0	0	0
East North Central.....	16	1	12	6	13	10	31	3	31	<sup>3</sup> 8
West North Central.....	25	2	10	2	4	10	16	4	10	30
South Atlantic.....	6	6	12	0	6	2	19	4	2	4
East South Central.....	5	5	26	10	32	10	11	0	11	5
West South Central.....	0	4	0	9	0	30	0	4	9	4
Mountain.....	<sup>1</sup> 9	9	18	0	18	9	18	0	9	0
Pacific.....	44	22	47	3	41	5	75	49	94	5

## TYPHOID FEVER CASE RATES

101 cities.....	<sup>1</sup> 25	27	27	24	11	21	17	16	13	<sup>2</sup> 12
New England.....	17	12	22	17	2	9	31	7	17	<sup>4</sup> 8
Middle Atlantic.....	21	14	12	12	8	21	20	21	14	13
East North Central.....	15	17	18	13	9	10	3	5	3	<sup>3</sup> 4
West North Central.....	18	24	31	26	16	16	14	6	8	8
South Atlantic.....	25	75	69	45	10	36	29	23	27	19
East South Central.....	100	140	168	104	42	52	32	36	21	31
West South Central.....	79	39	48	22	57	34	31	13	31	17
Mountain.....	<sup>1</sup> 85	46	37	91	9	27	18	27	18	18
Pacific.....	19	19	8	46	3	30	6	30	14	22

<sup>1</sup> Helena, Mont., not included.

<sup>2</sup> Hartford, Conn., and Racine, Wis., not included.

<sup>3</sup> Hartford, Conn., not included.

<sup>4</sup> Racine, Wis., not included.

Summary of weekly reports from cities, October 24 to November 27, 1926—Annual rates per 100,000 population, compared with rates for the corresponding period of 1925—Continued

## INFLUENZA DEATH RATES

	Week ended—									
	Oct. 31, 1925	Oct. 30, 1926	Nov. 7, 1925	Nov. 6, 1926	Nov. 14, 1925	Nov. 13, 1926	Nov. 21, 1925	Nov. 20, 1926	Nov. 28, 1925	Nov. 27, 1926
95 cities.....	<sup>2</sup> 10	11	13	11	11	14	8	10	9	<sup>3</sup> 10
New England.....	12	7	5	12	7	2	2	2	12	<sup>4</sup> 10
Middle Atlantic.....	10	8	14	9	14	10	6	10	8	7
East North Central.....	7	14	11	6	10	10	6	10	5	<sup>4</sup> 9
West North Central.....	11	2	6	6	13	13	2	6	2	2
South Atlantic.....	6	21	17	15	2	17	13	8	10	15
East South Central.....	26	10	37	21	26	26	42	31	26	42
West South Central.....	34	24	15	43	29	71	10	33	34	33
Mountain.....	<sup>2</sup> 9	9	9	18	0	27	18	9	9	36
Pacific.....	4	7	15	7	4	14	18	4	4	0

## PNEUMONIA DEATH RATES

95 cities.....	<sup>2</sup> 117	96	133	101	132	106	146	123	126	<sup>3</sup> 126
New England.....	108	99	134	99	120	90	139	104	156	<sup>4</sup> 135
Middle Atlantic.....	136	101	143	113	143	114	160	135	145	138
East North Central.....	114	86	119	84	131	85	139	106	95	<sup>4</sup> 100
West North Central.....	97	63	86	84	81	76	101	120	81	74
South Atlantic.....	129	107	194	120	152	139	146	143	134	165
East South Central.....	105	135	152	99	163	166	221	171	179	104
West South Central.....	116	80	150	118	102	113	155	156	150	213
Mountain.....	<sup>2</sup> 76	182	102	164	176	155	222	109	157	146
Pacific.....	47	89	91	50	109	99	87	75	98	124

<sup>2</sup> Helena, Mont., not included.

<sup>3</sup> Hartford, Conn., and Racine, Wis., not included.

<sup>4</sup> Hartford, Conn., not included.

<sup>5</sup> Racine, Wis., not included.

Number of cities included in summary of weekly reports, and aggregate population of cities in each group, approximated as of July 1, 1925 and 1926, respectively

Group of cities	Number of cities reporting cases	Number of cities reporting deaths	Aggregate population of cities reporting cases		Aggregate population of cities reporting deaths	
			1925	1926	1925	1926
Total.....	101	95	29,900,058	30,427,598	29,221,531	29,733,613
New England.....	12	12	2,176,124	2,206,124	2,176,124	2,206,124
Middle Atlantic.....	10	10	10,346,970	10,478,970	10,346,970	10,478,970
East North Central.....	16	16	7,481,656	7,655,436	7,481,656	7,655,436
West North Central.....	12	10	2,550,024	2,589,131	2,431,253	2,468,448
South Atlantic.....	21	21	2,716,070	2,776,070	2,716,070	2,776,070
East South Central.....	7	7	993,103	1,004,953	993,103	1,004,953
West South Central.....	8	6	1,184,057	1,212,057	1,078,198	1,103,695
Mountain.....	9	9	563,912	572,773	563,912	572,773
Pacific.....	6	4	1,888,142	1,934,084	1,434,245	1,469,144

## FOREIGN AND INSULAR

### THE FAR EAST

*Report for week ended November 20, 1926.*—The following report for the week ended November 20, 1926, was transmitted by the Eastern Bureau of the Secretariat of the Health Section of the League of Nations, located at Singapore, to the headquarters at Geneva:

Maritime towns	Plague		Cholera		Small-pox		Maritime towns	Plague		Cholera		Small-pox	
	Cases	Deaths	Cases	Deaths	Cases	Deaths		Cases	Deaths	Cases	Deaths	Cases	Deaths
<b>British India:</b>							<b>Siam: Bangkok</b>	0	0	3	0	7	1
Calcutta	0	0	34	10	12		<b>French Indo-China:</b>						
Rangoon	2	0	0	0	0		Turane	0	0	6	1	0	0
Nagapatam	0	0	1	0	0		Haiphong	0	0	27	22	0	0
Ceylon, Colombo	0	0	0	0	0		Japan: Kobe	0	0	0	0	1	0
Straits Settlements:							Mauritius	2	0	0	0	0	0
Singapore	0	0	2	2	1	2	Port Louis	1	0	0	0	0	0
Dutch East Indies:							Union of South Africa:						
Cheribon	0	0	0	0	0	0	Durban	0	0	0	0	4	0

Telegraphic reports from the following maritime towns indicated that no case of plague, cholera, or smallpox was reported during the week:

#### ASIA

*Arabia.*—Aden, Jeddah, Kamaran, Perim.  
*Iraq.*—Basrah.  
*Persia.*—Mohammerah, Bender-Abbas, Bushire.  
*British India.*—Karachi, Chittagong, Cochin, Vizagapatam, Tuticorin, Bombay, Madras.  
*Portuguese Indies.*—Nova Goa.  
*Federated Malay States.*—Port Swettenham.  
*Straits Settlements.*—Penang.  
*Dutch East Indies.*—Samarang, Batavia, Surabaya, Sabang, Makassar, Banjarmasin, Palembang, Pontianak, Belawan-Deli, Padang, Samarinda, Tarakan, Menado.  
*French Indo-China.*—Saigon and Cholon.  
*Sarawak.*—Kuching.  
*British North Borneo.*—Sandakan, Jesselton, Kudat, Tawao.  
*Portuguese Timor.*—Dilly.  
*China.*—Amoy, Shanghai (International Settlement).  
*Hongkong.*  
*Macao.*  
*Formosa.*—Keelung.  
*Japan.*—Yokohama, Osaka, Nagasaki, Niigata, Tsu-ruga, Hakodate, Shimonoseki, Moji.  
*Korea.*—Chemulpo, Fusan.  
*Manchuria.*—Mukden, Changchun, Harbin, Antung, Yingkow.  
*Kwantung.*—Port Arthur, Dairen.  
*U. S. S. E.*—Vladivostok.

#### AUSTRALASIA AND OCEANIA

*Australia.*—Adelaide, Melbourne, Sydney, Brisbane, Rockhampton, Townsville, Port Darwin, Broome, Fremantle, Carnarvon, Thursday Island.  
*New Guinea.*—Port Moresby.  
*New Britain Mandated Territory.*—Rabaul and Kokopo.  
*New Zealand.*—Auckland, Wellington, Christchurch, Invercargill, Dunedin.  
*New Caledonia.*—Noumea.  
*Fiji.*—Suva.  
*Hawaii.*—Honolulu.  
*Society Islands.*—Papeete.

#### AFRICA

*Egypt.*—Port Said, Suez, Alexandria.  
*Anglo-Egyptian Sudan.*—Port Sudan, Suakin.  
*Eritrea.*—Massaua.  
*French Somaliland.*—Jibuti.  
*British Somaliland.*—Berbera.  
*Italian Somaliland.*—Mogadiscio.  
*Kenya.*—Mombasa.  
*Zanzibar.*—Zanzibar.  
*Tanganyika.*—Dar-es-Salaam.  
*Seychelles.*—Victoria.  
*Madagascar.*—Majunga, Tamatave.  
*Portuguese East Africa.*—Mozambique, Beira, Lourenco, Marques.  
*Union of South Africa.*—East London, Port Elizabeth, Cape Town.

Reports had not been received in time for distribution from:

Dutch East Indies.—Balikpapan.

Philippine Islands.—Manila, Iloilo, Jolo, Cebu  
Zamboanga.

### ALGERIA

*Plague—Oran—Sfax—November 10, 1926.*—Plague has been reported in Algeria as follows: At Oran, November 12, 1926, one fatal case; near Sfax, November 10, seven small foci.

### BRAZIL

*Smallpox—Rio de Janeiro—October 17–November 13, 1926.*—During the four weeks ended November 13, 1926, 279 cases of small-pox with 187 deaths were reported at Rio de Janeiro, Brazil. Population, estimated, 1,587,535.

*Summary.*—From January 1 to November 13, 1926, a total of 3,880 new cases of smallpox with 2,092 deaths was reported at Rio de Janeiro, Brazil.

### CANADA

*Communicable diseases—Week ended November 20, 1926.*—The Canadian Ministry of Health reports cases of certain communicable diseases in five Provinces of Canada for the week ended November 20, 1926, as follows:

Disease	Nova Scotia	Quebec	Ontario	Manitoba	Saskatchewan	Total
Influenza.....	33			1		34
Smallpox.....			34	8	15	57
Typhoid fever.....		6	9	2	3	20

*Communicable diseases—Ontario Province—November, 1926—Comparative.*—During the month of November, 1926, communicable diseases were reported in the Province of Ontario, Canada, as follows:

Disease	1926		1925	
	Cases	Deaths	Cases	Deaths
Cerebrospinal meningitis.....		2		1
Chancroid.....	1		1	
Chicken pox.....	1,527		859	
Diphtheria.....	393		279	19
German measles.....	15		4	
Gonorrhea.....	157		143	
Influenza.....		7		14
Lethargic encephalitis.....	2			4
Measles.....	736		530	
Mumps.....	47		306	
Pneumonia.....		127		177
Poliomyelitis.....	8	1	3	1
Scarlet fever.....	546		514	4
Smallpox.....	95	1	31	
Syphilis.....	99		105	
Tuberculosis.....	84	42	139	75
Typhoid fever.....	46	5	76	10
Whooping cough.....	312	2	130	3



*Smallpox.*—During the month of November, 1926, smallpox was reported in the Province of Ontario at 20 localities, the greatest number of cases being reported at Toronto, viz, 34; at Peterboro, 22 cases were reported.

#### COLOMBIA

*Measures against rats.*—Information received from the National Board of Hygiene shows that the campaign against rats is carried out in the Republic of Colombia at the Pacific ports which are in proximity to Guayaquil. The appropriation for the work is divided between the ports of Buenaventura and Tumaco. At Buenaventura a permanent service of rat catching is maintained, the methods employed being traps and premiums offered for dead rats. Measures against rats are carried out at the Atlantic ports, but on a smaller scale and only when deemed urgent by the sanitary officials.

#### CUBA

*Malaria—Santiago de Cuba.*—Under date of November 27, 1926, 193 cases of malaria were officially reported in the city of Santiago de Cuba. Unofficial reports place the number at about 5,000 cases present in the city and suburbs.

#### EGYPT

*Plague—Tanta District—November 9, 1926.*—A case of plague was reported November 9, 1926, in the district of Tanta.

*Summary—January 1–November 4, 1926.*—During the period from January 1 to November 4, 1926, 141 cases of plague were reported in Egypt, as compared with 135 cases during the corresponding period of the year 1925.

#### PARAGUAY

*Mortality from tuberculosis—Asuncion—June 27–October 30, 1926.*—During the period June 27 to October 30, 1926, 65 deaths from tuberculosis were reported at Asuncion, Paraguay. Population, 65,000.

*Prevailing diseases.*—During the same period, bronchitis, influenza, and pneumonia were stated to be the prevailing diseases at Asuncion.

#### TUNISIA

*Plague—November, 1926.*—Under date of November 27, 1926, six centers of plague were stated to exist in Tunisia, with a total of 57 isolated cases. No case of plague was reported in the city of Tunis or its suburbs. The epidemic was stated to be an epizootic affecting only the wild rats of the farming country of the interior and to have no relation with the Mediterranean ports. No new case of plague has been reported at Zarzia since October 31, 1926.

## UNION OF SOUTH AFRICA

**Plague—Cape Province—October 17-23, 1926.**—During the week ended October 23, 1926, 4 cases of plague with 3 deaths were reported in the Cape Province, Union of South Africa, occurring according to locality as follows: *Kimberley District*, on farm in vicinity of Modder River Station, 1 fatal case, European, making a total of 3 European cases and 1 native case, all fatal, occurring on the same farm, from October 10 to 23, 1926; *Williston District*—cases, 3; deaths, 2.

**Smallpox, Durban, Natal.**—During the week ended October 23, 1926, 6 additional cases of smallpox were reported in Durban, Natal, occurring in immediate contacts with the first cases, making a total of 16 cases reported since the beginning of the outbreak. The case previously reported at Inanda was stated to have been chicken pox.

## CHOLERA, PLAGUE, SMALLPOX, TYPHUS FEVER, AND YELLOW FEVER

The reports contained in the following tables must not be considered as complete or final as regards either the lists of countries included or the figures for the particular countries for which reports are given

Reports Received During Week Ended December 17, 1926<sup>1</sup>

## CHOLERA

Place	Date	Cases	Deaths	Remarks
China:				
Amoy.....	Oct. 24-30.....	3		
India.....				Oct. 3-9, 1926: Cases, 1,277; deaths, 680.
Philippine Islands:				
Manila.....	Oct. 24-30.....	1		
Siam.....				Oct. 17-23, 1926: Case, 1. Apr. 1-Oct. 23, 1926: Cases, 7,671; deaths, 5,043.
Bangkok.....	Oct. 17-23.....	1		District.

## PLAGUE

Algeria:				
Oran.....	Nov. 13.....	1	1	
Stax.....	do.....	7		
British East Africa:				
Uganda.....	July, 1926.....	203	170	
Do.....	August, 1926.....	109	97	
China:				
Nanking.....	Oct. 10-23.....			Prevalent.
Egypt:				Nov. 3-9, 1926: Cases, 1. Jan. 1-Nov. 4, 1926: Cases, 141.
Tanta district.....	Nov. 3-9.....	1		Oct. 3-9, 1926: Cases, 1,002; deaths, 517.
India:				57 cases.
Madras Presidency.....	Oct. 10-16.....	117	62	
Tunisia.....	Reported No. 27.....			
Union of South Africa:				
Cape Province.....				Oct. 17-23, 1926: Cases, 4; deaths, 3.
Kimberley district.....	Oct. 17-23.....	1	1	European.
Williston district.....	do.....	3	2	Do.

<sup>1</sup> From medical officers of the Public Health Service, American consuls, and other sources.

# **CHOLERA, PLAGUE, SMALLPOX, TYPHUS FEVER, AND YELLOW FEVER—Continued**

## **Reports Received During Week Ended December 17, 1926—Continued**

### **SMALLPOX**

Place	Date	Cases	Deaths	Remarks
<b>Brazil:</b>				
Bahia.....	Oct. 17-23.....	3		
Pernambuco.....	Oct. 3-16.....	45	1	
Rio de Janeiro.....	Oct. 17-Nov. 13.....	279	187	Summary: Jan. 1-Nov. 13, 1926; Cases, 3,880; deaths, 2,092.
<b>British East Africa:</b>				
Tanganyika Territory.....	Aug. 29-Sept. 18.....	7		
Uganda.....	August, 1926.....	1		
<b>Canada:</b>				
Manitoba.....	Nov. 14-20.....	8		
Winnipeg.....	Nov. 28-Dec. 4.....	2		
Ontario.....	Nov. 14-20.....	34		November, 1926: Cases, 95; deaths, 1. Corresponding period, 1925: Cases, 31.
Ottawa.....	Nov. 28-Dec. 4.....	1		
Toronto.....	Nov. 21-27.....	8		
Saskatchewan.....	Nov. 14-20.....	15		
<b>China:</b>				
Chungking.....	Oct. 17-23.....			Present.
Foochow.....	Oct. 24-30.....			Do.
Nanking.....	Oct. 8-30.....			Prevalent.
Swatow.....	Oct. 24-30.....			Sporadic.
<b>Great Britain:</b>				
England and Wales.....	Nov. 7-13.....	218		
Newcastle-on-Tyne.....	Nov. 14-30.....	1		
Stoke on Trent.....	Nov. 7-13.....	1		
<b>India:</b>				
Bombay.....	Oct. 17-23.....	7	5	Oct. 3-9, 1926: Cases, 425; deaths, 80.
Madras.....	Oct. 31-Nov. 6.....	1		
<b>Mexico:</b>				
Mexico City.....	Nov. 19-25.....	1		Including municipalities in Federal district.
San Luis Potosi.....	Nov. 14-27.....		5	
<b>Portugal:</b>				
Lisbon.....	Nov. 7-13.....	1		
<b>Siam:</b>				
Bangkok.....	Oct. 17-23.....	2	1	Oct. 17-23, 1926: Cases, 3; deaths, 1. Apr. 1-Oct. 23, 1926: Cases, 599; deaths, 241.
<b>Union of South Africa:</b>				
Natal—				
Durban.....	Oct. 17-23.....	6		Hindus and natives. Total occurrence in outbreak, 16 cases, 4 deaths.

### **TYPHUS FEVER**

<b>China:</b>				
Antung.....	Oct. 25-31.....	3		
<b>Great Britain:</b>				
Scotland—				
Port Glasgow.....	Reported Dec. 10.....	8		
<b>Mexico:</b>				
City of Mexico.....	Nov. 7-20.....	12		Including municipalities in Federal district.
<b>Poland:</b>				
Tarnopol district.....	Oct. 10-16.....	1	1	
<b>Union of South Africa:</b>				
Cape Province—				
Clydesdale.....	Oct. 17-23.....			Outbreaks.

## **Reports Received from June 26 to December 10, 1926<sup>1</sup>**

### **CHOLERA**

Place	Date	Cases	Deaths	Remarks
<b>Ceylon:</b>				
				Apr. 18-May 29, 1926: Cases, 31; deaths, 29.
<b>China:</b>				
Amoy.....	Aug. 8-Oct. 23.....	271		
Antung.....	Aug. 1-31.....	560		
Canton.....	June 1-30.....	38	14	
Do.....	July 15-31.....	54	28	
Do.....	Aug. 25-31.....	30	8	

<sup>1</sup> From medical officers of the Public Health Service, American consuls, and other sources.

# **CHOLERA, PLAGUE, SMALLPOX, TYPHUS FEVER, AND YELLOW FEVER—Continued**

**Reports Received from June 26 to December 10, 1926—Continued**

## **CHOLERA—Continued**

Place	Date	Cases	Deaths	Remarks	
China—Continued.					
Changsha	Oct. 3-16	2		In foreign population.	
Foochow	Aug. 15-Oct. 2		1		
Kulangsu	Sept. 12-18		2		
Manchuria—					
Changshun	Aug. 1-31	320		Present.	
Dairen	do.	10	1		
Harbin	Aug. 5-Sept. 12	289	83		
Newchwang	Aug. 1-31	167			
Nanking	July 25-Oct. 2			Cases, foreign; deaths, native and foreign.	
Shanghai	Reported July 20	35	8		
Do.	July 25-Oct. 23	43	420		
Swatow	July 11-Oct. 16	50	63	Japanese settlements, 10 deaths; Chinese, 30 to 40 deaths daily; estimated.	
Tsingtao	July 11-Aug. 30	4	4		
Do.	Oct. 10-16			Present.	
Chosen:					
North Heian Province	Sept. 3-16	70	30	Deaths estimated.	
Shingishu	Sept. 13	19		Including places in vicinity.	
French Settlements in India.					
Do.	Mar. 7-June 26	31	30	Apr. 25-June 26, 1926: Cases, 18,526; deaths, 11,531. June 27-Oct. 2, 1926: Cases, 27,267; deaths, 17,286.	
Do.	June 27-Aug. 28	94	83		
India.					
Bombay	May 30-June 5	1	1		
Do.	July 18-Oct. 16	4	4		
Calcutta	Apr. 4-May 29	478	418		
Do.	June 13-26	73	69		
Do.	June 27-Sept. 25	304	272		
Madras	May 16-June 5	2	1		
Do.	Aug. 1-Sept. 25	7	6		
Rangoon	May 9-June 26	67	44		
Do.	June 27-Sept. 4	31	29		
Indo-China:					
Saigon	May 2-15	52	48	To Sept. 10, 1926: Cases, 35.	
Do.	May 22-June 26	42	32		
Do.	June 27-Aug. 14	31	17		
Japan.					
Ken (Prefecture)—					
Hiroshima	To Sept. 10	1		Including Yokohama.	
Hyogo	do.	7			
Kagawa	do.	8			
Kanagawa	do.	3			
Kochi	do.	1			
Okayama	do.	7			
Osaka	do.	6			
Taioku	Sept. 1-10	2			
Wakayama	To Sept. 10	2			
Taiwan Island	Sept. 21-Oct. 10	11			
Philippine Islands:					
Manila	Dec. 29, 1925-Oct. 2, 1926	26	6	Apr. 1-Oct. 16, 1926: Cases, 7,670 deaths, 5,043.	
Provinces—					
Albay	Apr. 18-24	1	1		
Davao	May 23-29	1			
Mindoro	Feb. 21-Mar. 6	3	3		
Pampanga	July 25-31	1	1		
Rizal	July 18-24	1			
Romblon	Dec. 14-31	42	43		
Do.	Jan. 2-Mar. 27	41	35		
Siam.					
Bangkok	May 2-June 12	1,325	736		
Do.	June 20-26	56	26		
Do.	June 27-Oct. 16	97	68		
Straits Settlements:					
Singapore	July 4-17	2	1	At Yokohama, Japan. Vessel sailed from Singapore July 13, 1926.	
On vessel:					
Steamship Macedonia	Aug. 5	7			



# CHOLERA, PLAGUE, SMALLPOX, TYPHUS FEVER, AND YELLOW FEVER—Continued

Reports Received from June 26 to December 10, 1926—Continued

## PLAGUE

Place	Date	Cases	Deaths	Remarks
Algeria:				
Algiers.....	June 21-30.....	1	-----	Under date of July 16, 2 cases reported.
Do.....	July 1-20.....	1	-----	
Do.....	Sept. 23.....	1	-----	
Bona.....	Aug. 14.....	1	-----	
Oran.....	Sept. 21-Oct. 10.....	9	4	
Philippeville.....	Sept. 7.....	1	-----	
Azores:				
Fayal Island—				
Horta.....	Aug. 2-29.....	2	2	
St. Michaels Island.....	May 9-June 26.....	4	1	
Do.....	June 27-July 10.....	3	1	
Brazil:				
Paranagua.....	Oct. 8.....	-----	-----	Present.
British East Africa:				
Kenya—				
Kisumu.....	May 16-22.....	1	1	
Do.....	Aug. 17-Sept. 11.....	3	2	
Uganda.....	Mar. 1-June 30.....	732	574	
Canary Islands:				
Las Palmas.....	Nov. 2.....	3	-----	Stated to be in locality removed from port.
Teneriffe.....	Aug. 2.....	2	-----	
Ceylon:				
Colombo.....	May 29-June 5.....	1	1	
Chile:				
Iquique.....	June 20-26.....	-----	1	
China:				
Amoy.....	Apr. 18-June 26.....	40	30	
Do.....	June 27-Aug. 7.....	28	-----	
Foochow.....	June 6-July 31.....	-----	-----	Several cases. Not epidemic. Prevalent.
Nanking.....	May 9-Sept. 18.....	-----	-----	
Swatow.....	July 25-31.....	14	-----	
Ecuador:				
Chimborazo.....	January-June.....	9	2	January-June, 1926: Cases, 385; deaths, 154. Rats taken, 766.
Guayaquil.....	May 16-June 30.....	6	-----	
Do.....	July 1-Oct. 31.....	19	3	Rats taken, 30,914; found infected, 31.
Leon.....	January-June.....	43	19	Rats taken, 82,774; found infected, 115.
Loja.....	do.....	176	75	Localities, 2.
Tungurahua.....	do.....	83	29	Cantons, 2.
Egypt:				
City—				
Alexandria.....	July 27-Aug. 12.....	4	1	At Ambato, Huachi, and Pichayhua. Rats taken, 1,542.
Suez.....	May 21-July 1.....	9	5	
Do.....	July 29.....	2	-----	
Provinces—				
Behera.....	July 23-Aug. 15.....	4	1	In western desert.
Beni-Suef.....	May 23-June 8.....	8	2	
Charkieh.....	July 27.....	1	1	
Gharbieh.....	June 2.....	1	1	
Minieh.....	July 24.....	1	1	
Sidi Barrani.....	Sept. 30-Oct. 21.....	23	3	
Tanta District.....	Oct. 22-28.....	1	-----	
France:				
Marseille.....	July 8.....	1	1	Reported July 24.
Paris.....	Oct. 18.....	1	-----	Vicinity of Paris. Suburb of Paris.
St. Denis.....	Reported Aug. 2.....	1	-----	
St. Ouen.....	Aug. 14.....	2	-----	
Great Britain:				
Liverpool.....	Aug. 29-Sept. 4.....	2	1	
Greece:				
Athens.....	Apr. 1-May 31.....	16	4	Including Piræus.
Do.....	Aug. 1-Sept. 30.....	20	5	
Patras.....	May 27-June 12.....	4	1	Do.
Do.....	July 25-Oct. 29.....	9	5	
Zante.....	May 17.....	1	-----	
Hawaii Territory:				
Hamakua.....	June 9.....	-----	-----	1 plague rodent trapped near Hamakua Mill. Plague, infected rat trapped.
Honokaa.....	Oct. 6.....	1	1	
Panauhau.....	July 18-24.....	-----	-----	

# **CHOLERA, PLAGUE, SMALLPOX, TYPHUS FEVER, AND YELLOW FEVER—Continued**

## **Reports Received from June 26 to December 10, 1926—Continued**

### **PLAGUE—Continued**

Place	Date	Cases	Deaths	Remarks
India				Apr. 25-June 16, 1926: Cases, 53,001; deaths, 41,576. June 27-Oct. 2, 1926: Cases, 9,026; deaths, 5,143.
Bombay	May 2-June 26	16	15	
Do.	July 18-Oct. 9	13	12	
Karachi	May 23-June 26	15	13	
Do.	July 11-17	1	1	
Madras Presidency	Apr. 25-June 26	162	93	
Do.	July 4-Oct. 9	945	445	
Rangoon	May 9-June 26	20	15	
Do.	June 27-Oct. 16	87	75	
Indo-China:				
Saigon	May 23-June 26	8	3	
Do.	July 18-Aug. 7	2	1	
Iraq:				
Baghdad	Apr. 18-June 12	161	108	
Do.	July 18-Sept. 11	4	4	
Japan:				
Yokohama	July 2-Aug. 10	9	8	
Java:				
Batavia	Apr. 24-June 19	65	65	
Do.	June 26-Oct. 16	89	87	
Cheribon	Apr. 11-24	3	3	
Do.	Sept. 12-18	1	1	
East Java and Madura	June 13-19	1	1	
Do.	July 25-Oct. 16	1	2	
Surabaya	Aug. 22-Sept. 25	18	2	
Madagascar:				
Ambositra Province	May 1-15	4	4	Septicemic.
Antsirabi Province	June 16-30	4	4	
Itasy Province	do.	17	10	
Do.	Aug. 16-Sept. 15	7	7	
Maevatanana	do.	2	2	
Majunga Province	June 16-30	10	6	
Do.	Aug. 16-Sept. 15	57	48	
Mananjary Province	do.	1	1	
Moramanga Province	Apr. 1-15	2	2	Do.
Do.	Sept. 1-15	8	8	
Tamatave Province	Aug. 16-Sept. 15	17	12	
Tananarive Province				Apr. 1-June 30, 1926: Cases, 130; deaths, 120. July 1-Sept. 15, 1926: Cases, 155; deaths, 148.
Towns—				
Majunga	Aug. 1-15	14	10	
Tamatave (Port)	May 16-31	1	1	
Do.	July 1-Aug. 15	6	5	
Tananarive	Apr. 1-June 30	7	7	
Do.	July 1-Sept. 15	28	28	
Mauritius:				
Port Louis	July 31	1	1	
Nigeria				Feb. 1-June 30, 1926: Cases, 191; deaths, 163. July 1-31, 1926: Cases, 121; deaths, 112.
Peru				May-June, 1926: Cases, 57; deaths, 16. July 1-Sept. 30, 1926: Cases, 89; deaths, 52.
Departments—				Present.
Ancash	May 1-31			
Do.	July 1-Sept. 30	2		
Cajamarca	May 1-June 30	10	4	
Do.	Aug. 1-Sept. 30	1		
Ica	May 1-31	1		
Do.	July 1-31	1		
Junin	Sept. 1-30	21	20	
Lambayeque	do.	1		
Libertad	May 1-31	4		
Do.	Sept. 1-30	3	1	
Lima	May 1-June 30	29	12	
Do.	July 1-Sept. 30	60	31	
Piura	June 1-30	13		
Russia				Jan. 1-Mar. 31, 1926: Cases, 37.
Senegal				Nov. 1-30, 1925: Cases, 3; deaths, 2. Mar. 1-June 30, 1926: Cases, 342; deaths, 213.
Siam				Apr. 1-Oct. 16, 1926: Cases, 15; deaths, 10.
Bangkok	May 23-June 26	2	2	
Do.	July 18-24	1	1	
Straits Settlements:				
Singapore	July 11-24	1	1	
Do.	May 7-8		1	

# **CHOLERA, PLAGUE, SMALLPOX, TYPHUS FEVER, AND YELLOW FEVER—Continued**

**Reports Received from June 26 to December 10, 1926—Continued**

## **PLAGUE—Continued**

Place	Date	Cases	Deaths	Remarks
Syria:				
Beirut	July 1-Aug. 10	2		Present.
Do.	Oct. 15			
Tunisia	May 11-June 30	174		9 cases 30 miles south of Kairouan.
Do.	July 1-Aug. 20	13		
Kairouan	June 9	3		
Turkey:				
Constantinople	Aug. 1-Sept. 25	7	4	
Union of South Africa:				
Cape Province	May 16-22	5	3	
Calvinia District	June 13-26	12	6	
Do.	June 27-Aug. 21	3	3	
Hanover District	Oct. 10-16	1	1	Native. On farm.
Kimberley District	do.	1	1	European. On farm.
Williston District	June 13-26	2		
Do.	June 27-July 3	1		
Orange Free State—				
Hoopstad District	Aug. 15-21	1		
Protestpan	May 9-22	3	3	
On vessel:				
Steamship Zaria	September, 1926	2	2	At Liverpool, England, from Lagos, Nigeria, West Africa; 29 plague-infected rats found on board.

## **SMALLPOX**

Algeria				July 21-Sept. 20, 1926: Cases, 230.
Algiers	May 21-June 30	14		
Do.	July 1-Aug. 31	3		
Arabia:				
Aden	Oct. 3-9	1		Imported.
Belgium				Sept. 1-30, 1926: Cases, 2
Antwerp	Aug. 1-7	1	1	
Bolivia:				
La Paz	May 1-June 30	14	7	
Do.	July 1-Aug. 31	16	8	
Brazil:				
Bahia	June 20-26	1		
Do.	June 27-Oct. 10	73	41	
Manaos	Apr. 1-30		5	
Para	May 16-June 26	26	25	
Do.	June 27-Oct. 30	38	27	
Pernambuco	July 11-Oct. 2	191	25	
Porto Alegre	Aug. 10-31	2		
Rio de Janeiro	May 2-June 19	132	91	
Do.	July 4-Sept. 25	2,534	1,338	
Do.	Oct. 3-16	196	113	Jan. 1-Oct. 16, 1926: Cases, 3,601; deaths, 1,896.
Sao Paulo	June 27-Aug. 22		5	
Santos	Mar. 1-7		1	
British East Africa:				
Mombasa	July 5-11	5	4	
Tanganyika	May 1-31	252	46	
Uganda	Mar. 1-May 31	3		
British South Africa:				
Northern Rhodesia	May 18-24	17	6	Natives.
Do.	June 8-14	5		
Do.	Sept. 11-17	1		
Canada				
				May 30-June 26, 1926: Cases, 70.
				June 27-Nov. 13, 1926: Cases, 414.
Alberta				May 30-June 12, 1926: Cases, 3.
Calgary	Sept. 5-Nov. 22	47		June 27-Nov. 13, 1926: Cases, 82.
British Columbia—				
Vancouver	Aug. 16-Sept. 12	3		
Manitoba				May 30-June 26, 1926: Cases, 15.
				June 27-Nov. 13, 1926: Cases, 78.
Winnipeg	June 6-12	5		
Do.	July 4-Nov. 6	13		

# CHOLERA, PLAGUE, SMALLPOX, TYPHUS FEVER, AND YELLOW FEVER—Continued

Reports Received from June 26 to December 10, 1926—Continued

## SMALLPOX—Continued

Place	Date	Cases	Deaths	Remarks
Canada—Continued.				
New Brunswick				Oct. 31–Nov. 6, 1926: 1 case.
Northumberland County	Oct. 11–23	1		
Ontario				May 30–June 26, 1926: Cases, 36. June 27–Nov. 13: Cases, 144.
Fort William	July 25–Aug. 7	2		
Kingston	May 23–June 26	5		
Do.	July 11–Nov. 6	3		
Kitchener	Apr. 26–May 29	3	1	
North Bay	May 2–22	5		
Do.	July 25–31	2		
Orillia	Apr. 26–May 29	7		
Ottawa	July 18–24	1		
Packenham	do.	10		
Peterboro	Sept. 1–30	10		
Toronto	July 18–Nov. 20	38		
Waterloo	July 18–24	6		
Saskatchewan				May 30–June 26, 1926: Cases, 16. June 27–Nov. 13: Cases, 109.
Regina	July 4–Sept. 25	3		
Ceylon				Mar. 14–May 29, 1926: Cases, 44; deaths, 3. Sept. 12–18, 1926; Cases, 2.
Colombo	Sept. 19–Oct. 16	7		
Chile:				
Antofagasta	June 6–12	1		
China:				
Amoy	May 1–June 26	4	8	
Do.	July 4–10	1		
Antung	May 17–June 19	5		
Do.	July 4–18	2		
Canton	May 1–31	4	2	
Changsha	Aug. 8–14	1		
Chungking	May 2–Oct. 16			Present.
Foochow	May 2–Oct. 2			Do.
Fushun	Sept. 12–18	1		
Hongkong	May 2–June 26	19	10	
Do.	June 27–July 3	1	1	
Manchuria	July 4–31	18		Railway stations.
An-shan	May 16–June 12	5		South Manchurian Railway.
Antung	May 16–June 19	5		
Changchun	May 16–June 26	6		Do.
Do.	June 27–Sept. 11	2		Do.
Dairen	Apr. 26–June 20	69	16	
Do.	June 28–Aug. 8	5	3	
Fushun	May 16–June 5	4		Do.
Harbin	May 14–June 30	21		Do.
Do.	July 1–28	12		
Kai-yuan	May 16–June 30	10		Do.
Kungchuling	June 13–19	1		Do.
Liaoyang	May 16–June 30	4		Do.
Mukden	do.	4		Do.
Penhsihui	May 16–June 19	4		Do.
Do.	Aug. 8–Oct. 3	3		Do.
Saipinghai	May 16–June 30	2		Do.
Do.	Aug. 1–7	1		Do.
Teshihchiao	May 16–June 30	2		Do.
Tieh-ling	Sept. 27–Oct. 3	1		
Wa-feng-tien	do.	3		Do.
Do.	Aug. 1–7	1		Do.
Nanking	May 8–Sept. 18			Present.
Shanghai	May 2–June 26	10	25	Cases, foreign: Deaths, popula-
Do.	June 27–July 24	3	3	tion of international conces-
Do.	Oct. 3–9	1		sion, foreign and native.
Swatow	May 9–Oct. 23			Sporadic.
Tientsin	June 2–26		1	Reported by British municipal-
Wanshien	May 1			ity.
Wanhsien				Prevalent.
Chosen				Mar. 1–June 30, 1926: Cases, 667; deaths, 146. July 1–31, 1926: Cases, 82; deaths, 27.
Fusan	May 1–31	1		
Seishun	do.	2	1	
Egypt:				
Alexandria	May 15–July 1	18	3	
Do.	July 23–Oct. 21	14	7	
Cairo	Jan. 29–May 13	30	8	
Estonia				May 1–June 30, 1926: Cases, 3.
France				Mar. 1–June 30, 1926: Cases, 141. July 1–Aug. 31: Cases, 24.
Paris	Sept. 1–Oct. 31	65	18	
St. Etienne	Apr. 18–June 15	7	3	
Do.	Sept. 16–30	2	1	



# **CHOLERA, PLAGUE, SMALLPOX, TYPHUS FEVER, AND YELLOW FEVER—Continued**

## **Reports Received from June 26 to December 10, 1926—Continued**

### **SMALLPOX—Continued**

Place	Date	Cases	Deaths	Remarks
French settlements in India.....	Mar. 7-June 26.....	282	282	
Do.....	June 27-Aug. 28.....	68	68	
Germany:				
Coblenz.....	Oct. 24-30.....	1		
Gold Coast.....	Mar. 1-June 30.....	671		
Do.....	July 1-31.....	20	1	
Great Britain:				
England and Wales.....				May 23-June 26, 1926: Cases, 635; June 27-Nov. 6, 1926: Cases, 2,167.
Birmingham.....	Sept. 26-Oct. 2.....	1		
Bradford.....	May 23-29.....	1		
Do.....	Aug. 29-Sept. 4.....	1		
Hull.....	Oct. 17-23.....	1		
London.....	Sept. 26-Oct. 23.....	4		
Newcastle-on-Tyne.....	June 6-12.....	1		
Do.....	July 11-Nov. 13.....	6		At Gateshead, several cases re- ported.
Nottingham.....	May 2-June 5.....	7		
Do.....	July 18-24.....	1		
Sheffield.....	June 13-19.....	1		
Do.....	July 4-Nov. 13.....	32		
South Shields.....	Oct. 3-9.....	1		
Greece:				
Athens.....	July 1-31.....	71	6	Including Piræus.
Saloniki.....	June 1-14.....		3	
Guatemala:				
Guatemala City.....	June 1-30.....		2	
India:				
Bombay.....	May 2-June 36.....	220	134	Apr. 25-June 26, 1926: Cases, 54,851; deaths, 14,771. June 27- Oct. 2, 1926: Cases 27,415; deaths, 3,365.
Do.....	June 27-Oct. 16.....	122	67	
Calcutta.....	Apr. 4-May 30.....	171	152	
Do.....	June 13-26.....	24	18	
Do.....	June 27-Oct. 2.....	45	42	
Karachi.....	May 6-June 26.....	44	18	
Do.....	June 27-Oct. 30.....	15	7	
Madras.....	May 16-June 26.....	7	4	
Do.....	June 27-Oct. 30.....	79	21	
Rangoon.....	May 9-June 26.....	10	5	
Do.....	July 4-Sept. 11.....	21	4	
Indo-China:				
Saigon.....	May 9-June 26.....	2		
Iraq:				
Baghdad.....	do.....	8	3	
Do.....	July 4-Sept. 11.....	3	1	
Basra.....	Apr. 18-June 22.....	34	25	
Do.....	Aug. 15-21.....	1		
Italy:				
Catania.....	Aug. 9-15.....	2		Mar. 28-June 26, 1926: Cases, 34. June 27-Aug. 7, 1926: Cases, 12. Entire consular district, includ- ing island of Sardinia.
Rome.....	June 14-20.....	4		Apr. 25-June 26, 1926: Cases, 201. (Reported as alastrim.) June 27-Oct. 30, 1926: Cases, 327. (Reported as alastrim.)
Jamaica:				
Do.....				Apr. 11-June 26, 1926: Cases, 658. June 27-Aug. 26, 1926: Cases, 70.
Japan:				
Kobe.....	May 30-June 5.....	1		
Nagoya.....	May 16-June 22.....		1	
Do.....	July 4-10.....	1		
Taiwan Island.....	May 11-20.....	24		
Do.....	June 1-20.....	23		
Do.....	July 11-Aug. 10.....	2		
Tokyo.....	June 26-July 17.....	3		
Yokohama.....	May 2-8.....	2		
Java:				
Batavia.....	May 15-June 25.....	2		Province.
Do.....	July 24-Oct. 16.....	17		Do.
East Java and Madura.....	Apr. 11-July 3.....	100	6	
Do.....	July 4-Oct. 2.....	61	3	
Malang.....	Apr. 4-10.....	6	1	Interior.
Surabaya.....	May 16-22.....	14	1	
Do.....	July 18-Sept. 25.....	143	8	
Latvia.....				Apr. 1-June 30, 1926: Cases, 5.
Mexico:				
Aguascalientes.....	June 13-26.....		5	Feb. 1-June 30, 1926: Deaths, 1,525.
Guadalupe.....	June 8-14.....		2	
Do.....	June 29-Sept. 27.....		8	
Mexico City.....	May 16-June 5.....	3		Including municipalities in Fed- eral District.
Do.....	July 25-Sept. 25.....	6		Do.

# **CHOLERA, PLAGUE, SMALLPOX, TYPHUS FEVER, AND YELLOW FEVER—Continued**

## **Reports Received from June 26 to December 10, 1926—Continued**

### **SMALLPOX—Continued**

Place	Date	Cases	Deaths	Remarks
<b>Mexico—Continued</b>				
Saltillo	July 18-24		1	Present; 100 miles from Chihuahua.
San Antonio de Arenales	Jan. 1-June 30		7	
San Luis Potosi	June 13-26		23	
Do.	July 4-Nov. 13		17	
Torreón	May 1-June 30		16	
Do.	July 1-Nov. 13			
<b>Netherlands:</b>				
Amsterdam	July 18-24		9	Feb. 1-June 30, 1926: Cases, 521; deaths, 49.
<b>Nigeria</b>				
<b>Persia:</b>				
Teheran	Apr. 21-Aug. 23		14	
<b>Peru:</b>				
Arequipa	June 1-30		1	Mar. 28-May 1, 1926: Cases, 12; deaths, 1. June 27-Sept. 11, 1926: Cases, 416; deaths, 1.
<b>Poland</b>				
<b>Portugal:</b>				
Lisbon	Apr. 26-June 19	10	3	Jan. 1-Apr. 30, 1926: Cases, 2,529. Apr. 1-Oct. 2, 1926: Cases, 590; deaths, 236.
Do.	July 11-Nov. 6	35	7	
Oporto	May 23-June 5	4		
Do.	July 11-Nov. 6	3	1	
<b>Russia</b>				
<b>Siam</b>				
Bangkok	May 2-June 12	23	20	Jan. 1-June 30, 1926: Deaths, 99.
Do.	July 4-Oct. 2	77	60	
<b>Spain</b>				
Valencia	Aug. 22-Oct. 23	3		
<b>Straits Settlements:</b>				
Singapore	Apr. 25-May 1	1		
Do.	July 11-17	1		
<b>Sumatra:</b>				
Medan	Aug. 22-28			1 case varioloid.
<b>Switzerland:</b>				
Lucerne Canton	June 1-30	1		
Do.	July 1-31	2		
<b>Tripolitania</b>	Apr. 1-June 30	12		
<b>Tunisia</b>				
Tunis	Aug. 11-30	2	1	Apr. 1-June 30, 1926: Cases, 17. July 1-Sept. 30, 1926: Cases, 38.
<b>Union of South Africa</b>				
Cape Province	June 1-30	8		Outbreaks. Do. Do. Do.
Do.	June 20-26			
Idutyá district	Aug. 15-21			
Natal	May 23-29			
Durban	May 30-June 5			Do. June 6-12, 1926: Outbreaks in Pietersburg and Rustenburg districts.
Orange Free State	Oct. 10-16	12		
Transvaal	June 20-Aug. 28			Native.
Do.	Aug. 29-Sept. 4	1		
Johannesburg	May 9-June 12	5		
Do.	July 11-Sept. 25	4		
Pretoria	Sept. 19-25	1		Apr. 15-30, 1926: Cases, 2; deaths, 1.
<b>Yugoslavia</b>				
Zagreb	Aug. 9-15	2		
<b>On vessels:</b>				
S. S. Karapara				At Zanzibar, June 7, 1926: 1 case of smallpox landed. At Durban, Union of South Africa, June 16, 1926: 1 suspect case landed.
Steamship	July 2	1		Vessel from Glasgow, Scotland, for Canada. Patient from Glasgow; removed at quarantine on outward voyage.

### **TYPHUS FEVER**

<b>Algeria</b>				July 21-Sept. 20, 1926: Cases, 34; deaths, 1.
Algiers	May 21-June 30	7	1	
Do.	July 21-Aug. 31	3		
<b>Argentina:</b>				
Rosario	Feb. 1-28	2		

# **CHOLERA, PLAGUE, SMALLPOX, TYPHUS FEVER, AND YELLOW FEVER—Continued**

**Reports Received from June 26 to December 10, 1926—Continued**

## **TYPHUS FEVER—Continued**

Place	Date	Cases	Deaths	Remarks
Bolivia:				
La Paz.....	June 1-30.....		1	
Do.....	Aug. 1-31.....	9	1	
Bulgaria.....				Mar. 1-June 30, 1926: Cases, 87; deaths, 14.
Chile:				
Antofagasta.....	May 23-June 26.....	4		
Do.....	June 27-July 3.....	1		
Concepcion.....	June 1-7.....		1	
Do.....	Oct. 1-31.....			Stated to be present in gaol.
Iquique.....	Aug. 8-Oct. 16.....	1	2	
Valparaiso.....	Apr. 29-May 5.....		1	
Do.....	Aug. 14-Nov. 6.....	11		
China:				
Antung.....	June 14-27.....	7	1	
Do.....	June 28-Oct. 24.....	42	1	
Canton.....	May 1-31.....	1		
Chungking.....	Aug. 29-Sept. 4.....			Present.
Ichang.....			1	Reported May 1, 1926. Occurring among troops.
Manchuria—				
Harbin.....	Oct. 14-20.....	1		
Wanshien.....				Present among troops, May 1, 1926. Locality in Chungking consular district.
Chosen.....				Feb. 1-June 30, 1926: Cases 1,005; deaths, 112. July 1-31, 1926: Cases, 37; deaths, 6.
Chemulpo.....	May 1-June 30.....	38		
Do.....	July 1-31.....	7	2	
Gensan.....	June 1-30.....	1		
Seoul.....	do.....	8	3	
Do.....	July 1-Aug. 31.....	8		
Czechoslovakia.....				Jan. 1-June 30, 1926: Cases, 156; deaths, 6.
Egypt:				
Alexandria.....	July 16-Aug. 19.....	3		
Do.....	Oct. 1-7.....	1	1	
Cairo.....	Jan. 29-May 13.....	89	27	
Do.....	July 23-Aug. 5.....	1		
Port Said.....	June 4-24.....	4	1	
Do.....	July 9-Oct. 7.....	5	1	
Do.....	Aug. 1-31.....	5		
France.....				
Great Britain:				
Scotland—				
Glasgow.....	July 30-Aug. 21.....	9	1	
Greece:				
Athens.....	Sept. 1-30.....		17	Including Piræus.
Hungary.....	May 1-June 30.....	3		
Iraq:				
Baghdad.....	Oct. 10-16.....	1		
Ireland (Irish Free State):				
Cork County.....	June 5.....	1		Corrected report.
Do.....	Oct. 17-23.....	1		
Kerry County—				
Dingle.....	June 27-July 3.....	1		
Italy.....				Mar. 28-May 8, 1926: Cases, 3.
Palermo.....	Sept. 12-18.....	1		
Japan.....				Mar. 28-May 29, 1926: Cases, 37.
Latvia.....				May 1-June 30, 1926: Cases, 19.
Lithuania.....				Aug. 1-31, 1926: Cases, 2.
				Mar. 1-June 30, 1926: Cases, 199; deaths, 22. July 1-Aug. 31, 1926: Cases, 23.
				Feb. 1-June 30, 1926: Deaths, 189.
Mexico:				
Durango.....	July 1-31.....		1	
Mexico City.....	May 16-June 5.....	20		Including municipalities in Federal District.
Do.....	June 13-19.....	9		Do.
Do.....	July 25-31.....	3		Do.
Do.....	Aug. 15-Nov. 6.....	77		Do.
San Luis Potosi.....	June 13-26.....			Present, city and country.
Morocco.....				Mar. 1-June 30, 1926: Cases, 426.
Norway:				July 1-Aug. 31, 1926: Cases, 20.
Stavanger.....	Sept. 6-12.....	1		
Palestine.....				Mar. 1-June 30, 1926: Cases, 14; deaths, 1. Aug. 1-Oct. 25, 1926: Cases, 22.
Birtuvia.....	Oct. 31-Nov. 6.....	1		
Gaza.....	July 6-12.....	1		
Haifa.....	July 13-Aug. 30.....	5		

# **CHOLERA, PLAGUE, SMALLPOX, TYPHUS FEVER, AND YELLOW FEVER—Continued**

**Reports Received from June 26 to December 10, 1926—Continued**

## **TYPHUS FEVER—Continued**

Place	Date	Cases	Deaths	Remarks
Palestine—Continue.				
Halalal.....	Aug. 17-23.....	1	-----	
Jaffa district.....	June 15-28.....	5	-----	
Do.....	Sept. 28-Nov. 2.....	3	-----	
Jerusalem.....	Sept. 14-27.....	2	-----	
Majdal district.....	July 13-Aug. 2.....	2	-----	
Nazareth district.....	July 13-Nov. 2.....	6	-----	
Petah Tokvah.....	Oct. 5-11.....	3	-----	
Tiberias.....	Aug. 3-9.....	1	-----	
Yavneil.....	Aug. 17-23.....	1	-----	
Persia:				
Teheran.....	May 23-June 22.....	-----	1	
Do.....	July 24-Aug. 23.....	-----	3	
Peru:				
Arequipa.....	Jan. 1-31.....	-----	2	
Lima.....	Aug. 1-31.....	1	-----	
Poland.....				Mar. 28-June 26, 1926: Cases, 1,272; deaths, 85. June 27-Sept. 18, 1926: Cases, 294; deaths, 22
Rumania.....				Mar. 1-June 30, 1926: Cases, 899; deaths, 83. July 1-31, 1926: Cases, 65; deaths, 9.
Russia.....				Jan. 1-Apr. 30, 1926: Cases, 18,647.
Spain.....	Jan. 1-June 30.....	-----	13	
Tunisia.....				Apr. 1-June 30, 1926: Cases, 110.
Tunis.....	June 11-30.....	3	-----	July 1-Sept. 20, 1926: Cases, 101.
Turkey:				
Constantinople.....	June 16-22.....	1	-----	
Union of South Africa.....				Apr. 1-May 31, 1926: Cases, 153; deaths, 19.
Do.....				July 1-31, 1926: Cases, 90; deaths, 17.
Cape Province.....				Apr. 1-June 30, 1926: Cases, 202; deaths, 24, native. July 1-31, 1926: Cases, 58; deaths, 15.
Glengray district.....	June 27-July 3.....	-----	-----	Outbreaks.
Grahamstown.....	do.....	1	-----	
Natal.....				Apr. 1-June 30, 1926: Cases, 28.
Durban.....	July 25-Sept. 18.....	11	1	July 1-31, 1926: Cases, 23; deaths, 2.
Orange Free State.....				Apr. 1-June 30, 1926: Cases, 24; deaths, 4. July 1-31, 1926: Cases, 7.
Brandford district.....	Oct. 10-16.....	-----	-----	Outbreak on farm.
Transvaal.....				Apr. 1-June 30, 1926: Cases, 10; deaths, 5. July 1-31, 1926: Cases, 2. Aug. 15-21, 1926, outbreaks.
Johannesburg.....	Aug. 29-Sept. 4.....	1	-----	Outbreaks.
Walkkerstrom district.....	June 20-26.....	-----	-----	Do.
Wolmaransstad district.....	do.....	-----	-----	Do.
Yugoslavia.....				Apr. 15-June 30, 1926: Cases, 48; deaths, 7. July 1-Aug. 31, 1926: Cases, 3; deaths, 1.
Zagreb.....	May 15-21.....	1	-----	

## **YELLOW FEVER**

Place	Date	Cases	Deaths	Remarks
Brazil.....	Reported June 26.....	-----	-----	
Bahia.....	May 9-June 26.....	10	7	Present in interior of Bahia, Pirapora, and Minas.
Do.....	July 4-10.....	1	-----	
Gold Coast.....	Apr. 1-June 30.....	8	4	
Nigeria.....	June 1-30.....	1	1	